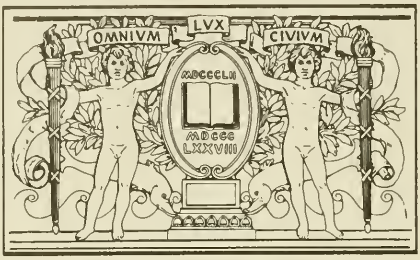
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MARINE MAMMALS

HEARINGS

BEFORE THE

SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION

OF THE

COMMITTEE ON MERCHANT MARINE AND FISHERIES HOUSE OF REPRESENTATIVES

NINETY-SECOND CONGRESS—FIRST SESSION

ON

H.R. 690, H.R. 4370, H.R. 4733, H.R. 6554, H.R. 6558, H.R. 6801, H.R. 6804, H.R. 7217, H.R. 7229, H.R. 7431, H.R. 7463, H.R. 7477, H.R. 7530, H.R. 7555, H.R. 7556, H.R. 7638, H.R. 7706, H.R. 7794, H.R. 7861, H.R. 7891, H.R. 7952, H.R. 8105, H.R. 8183, H.R. 8255, H.R. 8391, H.R. 8526, H.R. 8804, H.R. 9041, H.R. 9356, H.R. 9409, H.R. 9557, H.R. 9917, H.R. 10420, H.R. 10569, H.R. 10803, H.R. 10814, H. Con. Rs. 77, and H. Con. Res. 173

Legislation for the Preservation and Protection of Marine Mammals

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SEPTEMBER 9, 13, 17, 23, 1971

Serial No. 92–10

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MARINE MAMMALS

THURSDAY, SEPTEMBER 9, 1971

House of Representatives,
Committee of Merchant Marine and Fisheries,
Subcommittee on Fisheries and Wildlife Conservation,
Washington, D.C.

The subcommittee convened at 9:30 a.m., in room 1334, Longworth Office Building, Hon. John D. Dingell, chairman of the subcommittee, presiding.

Mr. Dingell. The subcommittee will come to order.

The Chair announces that we have a very extensive witness list, and a very limited amount of time, and because of the pendency of legislation on the floor this afternoon in which this committee is very directly interested, that is the ocean dumping legislation, it will be necessary for the committee to proceed expeditiously as possible.

For that reason, the Chair prays the indulgence of the membership in reducing the amount of time and number of questions for each witness.

I am sure the membership will cooperate as fully as possible.

The schedule of witnesses and the time of their appearance is before each member.

The first witness was to be our distinguished chairman, the Honorable Edward Garmatz, who is detained elsewhere in another meeting, and as soon as he has concluded that matter, he will be here.

I would like to say at the outset of these hearings that this subcommittee approaches the subject of marine mammal protection with open minds and no preconceptions as to the best way to deal with the problems which these animals confront.

That there are problems I think no one can deny. For years men have been killing whales and other marine mammals "as though there were no tomorrow," and while the evidence to support this theory may from time to time appear impressive. I think we must assume that tomorrow will happen and that we cannot continue to invade our biological capital without exposing ourselves to risks which we would be better advised to avoid.

The range of animals comprehended by most of the legislation before this committee includes whales, seals, walruses, sea otters, polar bears, and the sea cows, the largest species of which known to man has already been hunted to extinction. These animals are found on the high seas, in territorial waters and on U.S. lands. Their current protection varies from jurisdiction to jurisdiction and from species to species.

Federal interest in these animals varies widely as well. With the single exception of the Alaska fur seal, our research efforts to learn more of these animals has been, to put it charitably, very limited. The committee will be very much interested to learn from the witnesses just what they feel the level of funding should be, if we are to develop the knowledge that we must have in order to deal fairly and adequately with these animals, some of whom may be at least as intelligent as man—and what should be done to protect them in the interval before this research has been completed.

In these hearings we will attempt to develop the best available evidence as to what is happening to these species, and what additional protection they may require beyond what they may already have—if any. In many cases hard evidence will be lacking, which is itself indicative of present inadequacies of research and perhaps even protection.

Critics of present programs relating to marine mammals argue that the killing of any animals for any purpose ultimately involves moral or ethical questions. I would suggest that such questions become far more acute where this killing can be shown to be inhumane or where there is any possibility that it may produce irreversible consequences on animal species or important population stocks. In these cases we must act cautiously indeed.

In the course of the recent International Conference on the Biology of Whales, the suggestion was made that the burden of proof that any given rate of harvesting a species or stock will not damage that species or stock must rest with those who would benefit from that harvest. This strikes me as a rational and defensible principle upon which to base any scheme for the protection of marine mammals, and I commend it as a possible common thread of understanding to be kept in mind as these hearings proceed.

Once destroyed, biological capital cannot be recreated. This, it seems to me, argues irresistibly for prudent, responsible action on the part of everyone.

There are many bills presently pending before the committee which deal with the protection of some or all species of marine mammals. Some provide research authority only—H.R. 6804 by Mr. Whitehurst; some deal with only certain types of marine mammals—H.R. 7463, by Mr. Anderson of California; some are directed at the humane or inhumane methods of taking— House Concurrent Resolution 77, by Mr. Ryan and others; and H.R. 4370, by Mr. Helstoski. Mr. Pryor has introduced, with some 100 cosponsors, a bill which would impose an absolute ban upon the taking of all such mammals—H.R. 6558 and others—and Mr. Anderson and several others have introduced an alternative which would impose such a ban, but would permit the Secretary of the Interior to issue permits for the taking of marine mammals, after full public review—H.R. 10420.

Time is very limited, and I will not use any more of it here.

We have an impressive group of witnesses before us, and we look forward to hearing from all of them.

Because time is so limited we have taken the unusual and very distasteful step of limiting the time for testimony.

The committee staff has been in touch with all of these witnesses and their representatives, and I am sure anything they wish to say can be submitted in writing, and may be done in complete detail as they wish, and to ask that they summarize their oral testimony as succinctly as possible.

My colleagues and I will be sparing in questions at this time and it may be that some of the witnesses may be called back for more extended discussion at a later time, or there will be requests for submissions by correspondence.

For that reason, it is requested that all of our witnesses this morning make sure they have given the staff their address so that the committee may as necessary, communicate further with them.

The Chair asks the indulgence of all in the request elucidated, and I am sure we will have not only a successful hearing but the cooperation of everyone.

(The bills and departmental reports follow:)

[H.R. 690, H.R. 8255, 92d Cong., first sess.]

BILLS To require the Secretary of the Interior to make a comprehensive study of the polar bear and walrus for the purpose of developing adequate conservation measures

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior, in cooperation with the States, shall make a comprehensive study of the polar bear and the walrus, taking into consideration, among other things, the distribution, migrations, and population of these mammals and the effects of hunting, disease, and food shortages on them, for the purpose of developing adequate and effective measures, including appropriate laws and regulations, to conserve such mammals on the high seas. The Secretary of the Interior shall submit, through the President, a report on the study, together with such recommendations, including suggested legislation, that he deems appropriate, to the Congress no later than January 1, 1976.

SEC. 2. For the purpose of carrying out the provisions of this Act, there is hereby authorized to be appropriated the sum of $100,000 for the fiscal year ending June 30, 1972, and for each of the three succeeding fiscal years.

[H.R. 4370, H.R. 4733, 92d Cong., first sess.]

BILLS To amend the Fur Seal Act of 1966 by prohibiting the clubbing of seals after July 1, 1972, the taking of seal pups, and the taking of female seals on the Pribilof Islands or any other land and water under the jurisdiction of the United States

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act shall be known as the "Humane Seal Protection Act of 1971."

SECTION 1. Section 104 of the Fur Seal Act of 1966 is amended by adding at the end of subsection (a) thereof the following new subsections:

"(b) The killing of seals by clubbing shall be prohibited after July 1, 1972.

"(c) The taking of the skin of any seal under one year of age, and of any female seal, shall be prohibited."

Subsection (b) of the Act shall be redesignated subsection (d).

SEC. 2. Section 109(d) of the Act is amended by adding at the end thereof the following: "by any means, except after July 1, 1972, by clubbing,".

SEC. 3. Section 404 of the Act is amended by adding at the end thereof the following:

"Whoever knowingly transports in interstate commerce, or knowingly sells subsequent to such transportation, any package containing any sealskin, or any product manufactured, made, or processed, in whole or in part, from such sealskin, which has been taken in violation of any provision of this Act shall be fined not more than $2,000, or imprisoned not more than one year, or both, and the gross revenue derived from any such sale of any such illegally taken skin shall be confiscated by the Secretary of the Interior and deposited into the Pribilof Island fund in the Treasury."

SEC. 4. Section 405 of the Act is amended by adding at the end thereof the following:

"The Secretary shall initiate or contract for research on alternative means of killing seals, with the end of replacing the currently used method of clubbing. On the basis of such research, he shall determine which killing technique is maximally painless to the seals, and shall, not later than April 1, 1972, adopt regulations requiring that after July 1, 1972, such technique be the only permissible method of killing seals.

"The Secretary shall, moreover, initiate or contract for research on shortening the seal drive from rookery to hauling ground, and on minimizing the stress upon seals during that drive."

[H.R. 6554, H.R. 6558, H.R. 6801, H.R. 7217, H.R. 7229, H.R. 7431, H.R. 7477, H.R. 7530, H.R. 7555, H.R. 7556, H.R. 7706, H.R. 7794, H.R. 7861, H.R. 7891, H.R. 7952, H.R. 8105, H.R. 8391, H.R. 8526, H.R. 8804, H.R. 9041, H.R. 9356, H.R. 9409, H.R. 9557, H.R. 9917, 92d Cong., first sess.]

BILLS to protect ocean mammals from being pursued, harassed, or killed; and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following Act may be cited as the "Ocean Mammal Protection Act of 1971".

TITLE I—FINDINGS AND DECLARATIONS OF POLICY

FINDINGS

SEC. 101. The Congress finds that ocean mammals are being ruthlessly pursued, harassed, or killed, both at sea and on land by hunters of many nations of the world. The Congress further finds that many ocean mammals will become rare, if not extinct, unless steps are taken to stop their slaughter.

DECLARATIONS OF POLICY

SEC. 102. (a) It is hereby declared to be the public policy of the United States to protect all ocean mammals from harassment or slaughter.

(b) It is hereby declared to be the further public policy of the United States that negotiations should be undertaken with foreign governments and through interested international organizations with a view to obtaining a worldwide ban on the further slaughter of ocean mammals.

TITLE II—GENERAL PROHIBITIONS

DEFINITIONS

SEC. 201. For the purposes of this title—

(a) "ocean mammals" means all seal, whole, walrus, manatee or sea cow, sea otter, sea lion, polar bear, porpoise, and dolphin;

(b) "Person" includes individual, partnership, corporation, association, and federal and state agencies; and

(c) the terms "take" or "taking" or "taken" mean to harass, pursue, hunt, shoot, dynamite, capture, collect, kill, or attempt to harass, pursue, hunt, shoot, dynamite, capture, collect or kill.

PROHIBITIONS

SEC. 202. (a) It is unlawful, except as provided in section 203 of this title or in title III, for any person or vessel subject to the jurisdiction of the United States to engage in the taking of ocean mammals either on the high seas or on lands or waters under the jurisdiction of the United States, or to use any port or harbor or other place under the jurisdiction of the United States for any purpose connected in any way with such taking or for any person to transport, import, offer for sale, or possess at any port or place or on any vessel, subject to the jurisdiction of the United States, ocean mammals or the parts of ocean mammals taken after the enactment of this Act, including but not limited to, raw, dressed, or dyed fur or skins.

(b) The possession of ocean mammals or any part thereof by any person contrary to the provisions of this Act shall constitute prima facie evidence that that ocean mammal or part thereof was taken, purchased, sold, or transported in violation of the provisions of this Act or the regulations issued thereunder.

EXCEPTION FOR INDIANS, ALEUTS, AND ESKIMOS

SEC. 203. (a)) Indians, Aleuts, and Eskimos who dwell on the coasts of the North Pacific or Arctic oceans are permitted to take ocean mammals (except polar bears) for their own use but not for sale: *Provided, however,* That such taking must be done in accordance with customary traditions and as an adjunct of the native culture.

(b) The authority contained in this section shall not apply to Indians, Aleuts, and Eskimos who are employed by any person under the provisions of the Fur Seal Act of 1966 or title III of this Act for the purpose of taking ocean mammals, or who are under contract or agreement to deliver the skins to any person.

EXCEPTIONS FOR MEDICAL AND SCIENTIFIC RESEARCH AND FOR MUNICIPAL AND/OR OTHER NONPROFIT ZOOS

SEC. 204. (a) Nothing herein shall be considered to be a prohibition against municipal and/or other nonprofit zoos from obtaining written consent from the Secretary of Interior to humanely capture a representative number of the ocean mammals herein defined or replacement for deceased or otherwise ailing members of these species in these zoos.

(b) Further, nothing herein shall be construed to be a prohibition against the humane capture of a select number of these species of ocean mammals for certificable scientific and/or medical research.

(c) Regulations shall be promulgated by the Secretary of Interior for the purposes of subsections (a) and (b) above as to who shall be granted permission and for what purposes. Further, methods of capture, supervision and transportation shall be subjects of said regulations by the Secretary.

FORFEITURE

SEC. 205. (a) Every vessel subject to the jurisdiction of the United States that is employed in any manner in connection with a violation of the provisions of this title, including its tackle, apparel, furniture, appurtenance, cargo, and stores shall be subject to forfeiture and all ocean mammals or parts thereof, taken or retained in violation of this title or the monetary value thereof shall be forfeited.

(b) All provisions of law relating to the seizure, summary and judicial forfeiture, and condemnation of a vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores for violation of the customs laws, the disposition of such vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores, or the proceeds from the sale thereof, and remission of mitigation of such forfeitures shall apply to seizures and forfeitures incurred, or alleged to have been incurred, under the provisions of this title, insofar as such provisions of law are applicable and not inconsistent with the provisions of this title.

ENFORCEMENT

SEC. 206. (a) Enforcement of the provisions of this title is the joint responsibility of the Secretaries of State, Treasury, Interior, Commerce and Transportation. In addition, the Secretary of Interior may designate officers and employees of the States of the United States to enforce the provisions of this Act, which relates to persons or vessels subject to the jurisdiction of the United States. When so designated, such officers and employees are authorized to function as Federal law enforcement agents for these purposes, but they shall not be held and considered as employees of the United States for the purposes of any laws administered by the Civil Service Commission.

(b) The judges of the United States district courts and the United States Commissioners may, within their respective jurisdictions, upon proper oath or affirmation, showing probable cause, issue such warrants or other process, including warrants or other process issued in admiralty proceedings in Federal district courts, as may be required for enforcement of this title and any regulations issued thereunder.

(c) Any person authorized to carry out enforcement activities hereunder shall have the power to execute any warrant or process issued by any officer or court of competent jurisdiction for the enforcement of this title.

(d) Such person so authorized shall have the power—

(1) with or without a warrant or other process, to arrest any person committing in his presence or view a violation of this title or the regulations issued thereunder;

(2) with a warrant or other process or without a warrant, if he has reasonable cause to believe that a vessel subject to the jurisdiction of the United States or any person on board is in violation of any provision of this title or the regulations issued thereunder, to search such vessel and to arrest such person.

(e) Such person so authorized may seize any vessel subject to the jurisdiction of the United States, together with its tackle, apparel, furniture, appurtenances, cargo and stores, used or employed contrary to the provisions of this title or the regulations issued hereunder or which it reasonably appears has been used or employed contrary to the provisions of this title or the regulations issued hereunder.

(f) Such person so authorized may seize, whenever and wherever found, all ocean mammals or parts thereof taken or retained in violation of this title or the regulations issued thereunder and shall dispose of them in accordance with such regulations.

Sec. 207. The Secretaries of State, Treasury, Interior, Commerce and Transportation are authorized to issue regulations to carry out the provisions of this title.

Sec. 208. Any person violating the provisions of this title or the regulations issued thereunder shall on the first offense be fined not more than $5,000 or imprisoned not more than one year, or both; on conviction of second and subsequent offenses, the violator shall be fined not more than $10,000 or jailed for not less than one nor more than three years, or both.

Sec. 208. Title III ("Protection of Sea Otters on the High Seas") of Public Law 89–702 is hereby repealed.

Title III—North Pacific Fur Seals

TERMINATION OF NORTH PACIFIC FUR SEAL CONVENTION

Sec. 301. It is the sense of the Congress that the North Pacific Fur Seal Convention, signed on February 9, 1957, should not be continued after its current termination date in 1975, and that the said Convention should be permitted to expire in 1976.

Further, it is the sense of the Congress that the Secretary of State should immediately notify the other parties to the Convention that the United States does no intend to extend its life beyond 1976.

Further, it is the sense of the Congress that the Secretary of State should immediately initiate negotiations with the parties to the Convention and any other interested States for the purpose of obtaining an international agreement or agreements to ban all killing of North Pacific Fur Seals whether at sea or on land.

INTERIM ARRANGEMENTS

Sec. 302. (a) After enactment of this Act, no further North Pacific Fur Seals shall be killed to fill the United States "quota" (70 per centum) under the terms of the North Pacific Fur Seal Convention; all skins or parts thereof of the Alaskan Fur Seal shall be banned from import into the United States or in interstate commerce between the States; any agreement under Section 104 of the Fur Seal Act of 1966 for the processing of skins in any State other than Alaska shall be terminated.

(b) To honor our treaty provisions, between the enactment of this Act and the expiration of the North Pacific Fur Seal Convention, Japan and Canada will be given the option of taking the average dollar value (over the last five years) of the 15 per centum of the kill to which they are entitled or to take nine thousand skins each, to be shipped directly from the Pribilof Islands to those countries. If Japan or Canada elects to take the skins, the killing in the Pribilofs shall be done in the most humane manner and as close to the shore as possible. Further, to the extent practicable, such killings shall first be of old or crippled bachelor seals and second of old or crippled female seals; no seal under one year of age shall be killed.

ESTABLISHMENT OF PRIBILOF SEAL ROOKERY

Sec. 303. The Pribilof Islands shall be designated a National Seal Rookery Preserve and Bird Sanctuary under the Department of Interior; and the native Aleuts shall be given the Opportunity to be the Rangers and guides for this purpose, and they shall be given whatever training necessary for these jobs.

PRIBILOF ISLANDS COMMISSION

SEC. 404. The President, with the advice and consent of the Senate, shall appoint a Commission to help in the transfer of the Pribilof Islands from a place of killing into a preserve, to help promote tourism, and to develop an economy on the Island for the Aleuts to take the place of their participation in the slaughter of the seals.

The commission shall be comprised of a number of Pribilof Aleut natives, and it shall include the Secretaries or their designates from the Departments of State, Treasury, Commerce, the Administrator of the Small Business Administration, the Governor of Alaska, and two independent scientists in the fields of ocean biology and ecology.

REPEALER

SEC. 405. Such provisions of the Fur Seal Act of 1966 which are inconsistent herewith are hereby repealed.

[H.R. 6804, 92d Cong., first sess.]

A BILL To require the Secretary of the Interior to make a comprehensive study of the polar bear, seal, walrus, and cetaceans for the purpose of developing adequate conservation measures

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior, in cooperation with the States, shall make a comprehensive study of the polar bear, seal, walrus, and cetaceans, taking into consideration, among other things, the distribution, migrations, and population of these mammals and the effects of hunting, disease, pesticides and other chemicals, and food shortages on them, for the purpose of developing adequate and effective measures, including appropriate laws and regulations, to conserve such mammals on the high seas or on land, and to insure humane treatment in all cases. The Secretary of the Interior shall submit, through the President, a report on the study, together with such recommendations, including suggested legislation, that he deems appropriate, to the Congress no later than January 1, 1976.

SEC. 2. For the purpose of carrying out the provisions of this Act, there is hereby authorized to be appropriated the sum of $100,000 for the fiscal year ending June 30, 1972, and for each of the three succeeding fiscal years.

[H.R. 7463, H.R. 7638, 92d Cong., first sess.]

BILLS To protect seals from being pursued, harassed, or killed; and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following Act may be cited as the "Seal Protection Act of 1971".

TITLE I—FINDINGS AND DECLARATIONS OF POLICY

FINDINGS

SEC. 101. The Congress finds that seals are being ruthlessly pursued, harassed, and killed, both at sea and on land by hunters of many nations of the world. The Congress further finds that seals may become rare, if not extinct, unless steps are taken to stop their slaughter.

DECLARATIONS OF POLICY

SEC. 102. (a) It is hereby declared to be the public policy of the United States to protect seals from harassment or slaughter.

(b) It is hereby declared to be the further public policy of the United States that negotiations should be undertaken with foreign governments and through interested international organizations with a view to obtaining a worldwide ban on the further slaughter of seals.

TITLE II—GENERAL PROHIBITIONS

DEFINITIONS

SEC. 201. For the purpose of this title,

(a) "Person" includes individual, partnership, corporation, association, and Federal and State agencies; and

(b) the terms "take" or "taking" or "taken" mean to harass, pursue, hunt, shoot, dynamite, capture, kill, or attempt to harass, pursue, hunt, shoot, dynamite, capture, or kill.

PROHIBITIONS

SEC. 202 (a) It is unlawful, except as provided in section 203 of this title or in title III, for any person subject to the jurisdiction of the United States to engage in the taking of seals either on the high seas or on lands or waters under the jurisdiction of the United States, or for any person to import, offer for sale, or possess on any lands or waters, subject to the jurisdiction of the United States, seals or the parts of seals taken after the enactment of this Act, including but not limited to, raw, dressed, or dyed fur or skins.

(b) The possession of seals or any part thereof by any person contrary to the provisions of this Act shall constitute prima facie evidence that seals or part thereof was taken, purchased, sold, or transported in violation of the provisions of this Act or the regulations issued thereunder.

EXCEPTIONS FOR INDIANS, ALEUTS, AND ESKIMOS

SEC. 203. (a) Indians, Aleuts, and Eskimos who dwell on the coasts of the North Pacific or Arctic Ocean are permitted to take seals for their own use but not for sale: *Provided, however,* That such taking must be done in accordance with customary traditions and as an adjunct of the Native culture.

(b) The authority contained in this section shall not apply to Indians, Aleuts, and Eskimos who are employed by any person under the provisions of the Fur Seal Act of 1966 or title III of this Act for the purpose of taking seals, or who are under contract or agreement to deliver the skins to any person.

EXCEPTIONS FOR MEDICAL AND SCIENTIFIC RESEARCH, AND FOR MUNICIPAL AND/OR OTHER NONPROFIT ZOOS

SEC. 204. (a) Nothing herein shall be considered to be a prohibition against municipal and/or other nonprofit zoos from obtaining written consent from the Secretary of Interior to humanely capture a representative number of seals for replacement for deceased or otherwise ailing members of these species in these zoos.

(b) Further, nothing herein shall be construed to be a prohibition against the humane capture of a select number of these species for certifiable scientific and/or medical research.

(c) Nothing herein shall be considered to be a prohibition against any person in the discharge of his duties if such person is employed by, or is an authorized agent of, or is operating under license or permit of, any State or the United States to administer or protect or aid in the administration or protection of land, water, wildlife, or livestock.

(d) Regulations shall be promulgated by the Secretary of Interior for the purposes of subsections (a), (b), and (c) above as to who shall be granted permission and for what purposes. Further, methods of capture, supervision, and transportation shall be subjects of said regulations by the Secretary.

FORFEITURE

SEC. 205. (a) Every vessel subject to the jurisdiction of the United States that is employed in any manner in connection with a violation of the provisions of this title, including its tackle, apparel, furniture, appurtenances, cargo, and stores, shall be subject to forfeiture and all seals or parts thereof, taken or retained in violation of this title, or the monetary value thereof shall be forfeited.

(b) All provisions of law relating to the seizure, summary and judicial forfeiture, and condemnation of a vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores, for violation of the customs laws, the disposition of such vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores, or the proceeds from the sale thereof, and remission of mitigation of such forfeiture shall apply to seizures and forfeitures incurred, or alleged to have been incurred, under the provisions of this title, insofar as such provisions of law are applicable and not inconsistent with the provisions of this title.

ENFORCEMENT

Sec. 206. (a) Enforcement of the provisions of this title is the joint responsibility of the Secretaries of State, Treasury, Interior, Commerce, and Transportation. In addition, the Secretary of Interior may designate officers and employees of the States of the United States to enforce the provisions of this Act, which relates to persons or vessels subject to the jurisdiction of the United States. When so designated, such officers and employees are authorized to function as Federal law enforcement agents for these purposes, but they shall not be held and considered as employees of th United Stats for the purposes of any laws administred by the Civil Service Commission.

(b) The judges of the United States district courts and the United States commissioners may, within their respective jurisdictions, upon proper oath or affirmation showing probable cause, issue such warrants or other process, including warrants or other process issued in admiralty proceedings in Federal district courts, as may be required for enforcement of this title and any regulations issued thereunder.

(c) Any person authorized to carry out enforcement activities hereunder shall have the power to execute any warrant or process issued by any officr or court of comptent juisdiction for the enforcement of this title.

(d) Such person so authorized shall have the power—

(1) with or without a warrant or other process, to arrest any person committing in his presence or view a violation of this title or the regulations issued thereunder;

(2) with a warrant or other process or without a warrant, if he has reasonable cause to believe that a vessel subject to the jurisdiction of the United States or any person on board is in violation of any provision of this title or the regulations issued thereunder, to search such vessel and to arrest such person.

(e) Such person so authorized may seize any vessel subject to the jurisdiction of the United States, together with its tackle, apparel, furniture, appurtenances, cargo, and stores, used or employed contrary to the provisions of this title or the regulations issued hereunder or which it reasonably appears has been used or employed contrary to the provisions of this title or the regulations issued hereunder.

(f) Such persons so authorized may seize, whenever and wherever found, all seals or parts thereof taken or retained in violation of this title or the regulations issued thereunder and shall dispose of them in accordance with such regulations.

Sec. 207. The Secretaries of State, Treasury, Interior, Commerce and Transportation are authorized to issue regulations to carry out the provisions of this title.

Sec. 208. Any person violating the provisions of this title or the regulations issued thereunder shall on the first offense be fined not more than $5,000 or imprisoned not more than one year, or both; on conviction of second and subsequent offenses, the violator shall be fined not more than $10,000 or jailed for not less than one nor more than three years, or both.

Title III—North Pacific Fur Seals

TERMINATION OF NORTH PACIFIC FUR SEAL CONVENTION

Sec. 301. It is the sense of the Congress that the North Pacific Fur Seal Convention, signed on February 9, 1957, should not be continued after its current termination date in 1975, and that the said convention should be permitted to expire in 1976.

Further, it is the sense of the Congress that the Secretary of State should immediately notify the other parties to the convention that the United States does not intend to extend its life beyond 1976.

Further, it is the sense of the Congress that the Secretary of State should immediately initiate negotiations with the parties to the convention and any other interested states for the purpose of obtaining an international agreement or agreements to ban all killing of North Pacific fur seals whether at sea or on land.

INTERIM ARRANGEMENTS

SEC. 302. (a) After enactment of this Act, no further North Pacific fur seals shall be killed to fill the United States "quota" (70 per centum) under the terms of the North Pacific Fur Seal Convention; all skins or parts thereof of the Alaskan fur seal shall be banned from import into the United States or in interstate commerce between the States; any agreement under section 104 of the Fur Seal Act of 1966 for the processing of skins in any State other than Alaska shall be terminated.

(b) To honor our treaty provisions, between the enactment of this Act and the expiration of the North Pacific Fur Seal Convention, Japan and Canada shall be given the option of taking the average dollar value (over the last five years) of the 15 per centum of the kill to which they are entitled or to take nine thousand skins each, to be shipped directly from the Pribilof Islands to those countries. If Japan or Canada elects to take the skins, the killing in the Pribilofs shall be done in the most humane manner and as close to the shore as possible. Further, to the extent practicable, such killings shall first be of old or crippled bachelor seals and second of old or crippled female seals; no seal under one year of age shall be killed.

ESTABLISHMENT OF PRIBILOF SEAL ROOKERY

SEC. 303. The Pribilof Islands shall be designated a National Seal Rookery Preserve and Bird Sanctuary under the Department of Interior; and the native Aleuts shall be given the opportunity to be the rangers and guides for this purpose, and they shall be given whatever training necessary for these jobs.

PRIBILOF ISLANDS COMMISSION

SEC. 404. The President, with the advice and consent of the Senate, shall appoint a Commission to help in the transfer of the Pribilof Islands from a place of killing into a preserve, to help promote tourism, and to develop an economy on the island for the Aleuts to take the place of their participation in the slaughter of the seals.

The Commission shall be comprised of a number of Pribilof Aleut natives, and it shall include the Secretaries or their designates from the Departments of State, Treasury, Commerce, the Administrator of the Small Business Administration, the Governor of Alaska, and two independent scientists in the fields of ocean biology and ecology.

REPEALER

SEC. 405. Such provisions of the Fur Seal Act of 1966 which are inconsistent herewith are hereby repealed.

[H.R. 8183, 92d Cong., first sess.]

A BILL To protect ocean mammals, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Ocean Mammal Protection Act of 1971".

TITLE I—FINDINGS AND DECLARATIONS OF POLICY

FINDINGS AND DECLARATIONS OF POLICY

SEC. 101. (a) The Congress finds that ocean mammals are being ruthlessly pursued, harassed, and killed, both at sea and on land by hunters of many nations, and further finds that many ocean mammals will become rare, if not extinct, unless steps are taken to stop their slaughter.

(b) It is hereby declared to be the public policy of the United States (1) to protect all ocean mammals from harassment or slaughter; and (2) that negotiations should be undertaken with foreign governments and through interested international organizations with a view to obtaining a worldwide ban on the further slaughter of ocean mammals.

TITLE II—PROTECTION OF OCEAN MAMMALS

DEFINITIONS

SEC. 201. As used in this title—

(1) The term "ocean mammals" means all seal, whale, walrus, manatee or sea cow, sea otter, sea lion, polar bear, porpoise, and dolphin.

(2) The term "person" includes individual, partnership, corporation, association, and Federal and State agencies.

(3) The term "take" or "taking" or "taken" means to harass, pursue, hunt, shoot, dynamite, capture, collect, kill, or attempt to harass, pursue, hunt, shoot, dynamite, capture, collect, or kill.

PROHIBITIONS

SEC. 202. (a) It is unlawful, except as provided in section 203 of this title or in title III of the Ocean Mammal Protection Act of 1971, (1) for any person or vessel subject to the jurisdiction of the United States to engage in the taking of ocean mammals either on the high seas or on lands or waters under the jurisdiction of the United States, or to use any port or harbor or other place under the jurisdiction of the United States for any purpose connected in any way with such taking, or (2) for any person to transport, import, offer for sale, or possess at any port or place or on any vessel, subject to the jurisdiction of the United States, ocean mammals or the parts of ocean mammals taken after the effective date of this title, including but not limited to, raw, dressed, or dyed fur or skins.

(b) The possession of ocean mammals or any part thereof by any person contrary to the provisions of this title shall constitute prima facie evidence that ocean mammal or part thereof was taken, purchased, sold, or transported in violation of the provisions of this title or the regulations issued thereunder.

EXCEPTIONS FOR INDIANS, ALEUTS, AND ESKIMOS

SEC. 203. (a) Indians, Aleuts, and Eskimos who dwell on the coasts of the North Pacific or Arctic Oceans are permitted to take ocean mammals (except polar bears) for their own use but not for sale; except that such taking must be done in accordance with customary traditions and as an adjunct of the native culture.

(b) The authority contained in this section shall not apply to Indians, Aleuts, and Eskimos who are employed by any person under the provisions of the Fur Seal Act of 1966 or title III of the Ocean Mammal Protection Act of 1971 for the purpose of taking ocean mammals, or who are under contract or agreement to deliver the skins to any person.

EXCEPTIONS FOR MEDICAL AND SCIENTIFIC RESEARCH AND FOR CERTAIN ZOOS

SEC. 204. (a) Nothing in this title shall be considered (1) to prohibit any public or private nonprofit zoo from obtaining, with the written consent from the Secretary of the Interior, an appropriate number of ocean mammals to replace any which are deceased or diseased, if such replacement ocean mammals will be humanely captured; or (2) to prohibit the humane capture of a select number of ocean mammals for scientific or medical research.

(b) The Secretary of the Interior shall prescribe such regulations as may be necessary to carry out this subsection, including methods of capture, supervision, and transportation of ocean mammals.

FORFEITURE

SEC. 205. (a) Every vessel subject to the jurisdiction of the United States that is employed in any manner in connection with a violation of the provisions of this title, including its tackle, apparel, furniture, appurtenances, cargo, and stores shall be subject to forfeiture and all ocean mammals or parts thereof, taken or retained in violation of this title or the monetary value thereof shall be forfeited.

(b) All provisions of law relating to the seizure, summary, and judicial forfeiture, and condemnation of a vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores for violation of the customs laws, the disposition of such vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores, or the proceeds from the sale thereof, and remission of mitigation of such forfeitures shall apply to seizures and forfeitures incurred, or alleged to have been incurred, under the provisions of this title, insofar as such provisions of law are applicable and not inconsistent with the provisions of this title.

ENFORCEMENT

Sec. 206. (a) Enforcement of the provisions of this title is the joint responsibility of the Secretaries of State, Treasury, Interior, Commerce, and Transportation. In addition, the Secretary of Interior may designate officers and employees of the States or of the United States to enforce the provisions of this title. When so designated, such officers and employees are authorized to function as Federal law enforcement agents for these purposes, but they shall not be held and considered as employees of the United States for the purposes of any laws administered by the Civil Service Commission.

(b) The judges of the United States district courts and the United States commissioners may, within their respective jurisdictions, upon proper oath or affirmation, showing probable cause, issue such warrants or other process, including warrants or other process issued in admiralty proceedings in Federal district courts, as may be required for enforcement of this title and any regulations issued thereunder.

(c) Any person authorized to carry out enforcement activities hereunder shall have the power—

(1) to execute any warrant or process issued by any officer or court of competent jurisdiction for the enforcement of this title;

(2) with or without warrant or other process, to arrest any person committing in his presence or view a violation of this title or the regulations issued thereunder;

(3) with or without warant or other process, if he has reasonable cause to believe that a vessel subject to the jurisdiction of the United States or any person on board is in violation of any provision of this title or the regulations issued thereunder, to search such vessel and to arrest such person;

(4) to seize any vessel subject to the jurisdiction of the United States, together with its tackle, apparel, furniture, appurtenances, cargo, and stores, which is used or employed contrary to the provisions of this title or the regulations issued hereunder or which it reasonably appears has been used or employed contrary to the provisions of this title or the regulations issued hereunder; and

(5) to seize, whenever and wherever found, all ocean mammals or parts thereof taken or retained in violation of this title or the regulations issued thereunder and shall dispose of them in accordance with such regulations.

Sec. 207. The Secretaries of State, Treasury, Interior, Commerce, and Transportation are authorized to issue such regulations as may be necessary to carry out the provisions of this title.

Sec. 208. Any person violating the provisions of this title or the regulations issued thereunder shall on the first offense be fined not more than $5,000 or imprisoned not more than one year, or both; on conviction of second and subsequent offenses, the violator shall be fined not more than $10,000 or jailed for not less than one nor more than three years, or both.

Sec. 209. Title III (Protection of Sea Otters on the High Seas) of Public Law 89–702 is hereby repealed.

Title III—North Pacific Fur Seals

TERMINATION OF NORTH PACIFIC FUR SEAL CONVENTION

Sec. 301. It is the sense of the Congress that the North Pacific Fur Seal Convention, signed on February 9, 1957, should not be continued after its current termination date in 1975, and that the Convention should be permitted to expire in 1976. Furthermore, it is the sense of the Congress that the Secretary of State should immediately (1) notify the other parties to the Convention that the United States does not intend to extend its life beyond 1976; and (2) initiate negotiations with the parties to the Convention and any other interested states for the purposes of obtaining international agreement to ban all killing of North Pacific fur seals both on land and sea.

INTERIM ARRANGEMENTS

SEC. 302. (a) After the effective date of this title, (1) no North Pacific fur seal may be killed to fill the United States quota under the terms of the North Pacific Fur Seal Convention; (2) no skin or parts thereof of any such fur seal may be imported into the United States or introduced into interstate commerce; and (3) any agreement under section 104 of the Fur Seal Act of 1966 for the processing of fur seal skins in any State other than Alaska shall be terminated.

(b) To honor our treaty commitments, for each calendar year after the effective date of this title and before the expiration of the North Pacific Fur Seal Convention, Japan and Canada shall each be given the option of receiving an amount equal to the average annual dollar value of 15 per centum of the fur seal kill made during the most recent five-year period; or taking nine thousand skins to be shipped directly from the Pribilof Islands to that country. If Japan or Canada elects to take the skins, the killing in the Pribilofs shall be done in the most humane manner and as close to the shore as possible. Further, to the extent practicable, such killings shall first be of old or crippled bachelor seals and second of old or crippled female seals and no seal under one year of age shall be killed.

ESTABLISHMENT OF PRIBILOF SEAL ROOKERY

SEC. 303. The Pribiof Islands are hereby designated the National Seal Rookery Preserve and Bird Sanctuary and shall be administered by the Secretary of the Interior in accordance with the laws relating to national wildlife refuges; and the native Aleuts shall be given the opportunity to be the rangers and guides for this purpose, and they shall be given whatever training necessary for these jobs.

PRIBILOF ISLANDS COMMISSION

SEC. 304. The President, with the advice and consent of the Senate, shall appoint a Commission to help in the transfer of the Pribilof Islands from a place of killing into a preserve, to help promote tourism, and to develop an economy on the island for the Aleuts to take the place of their participation in the slaughter of the seals. The Commission shall be comprised of a number of Pribilof Aleut natives, and it shall include the Secretaries or their designates from the Departments of State, Treasury, and Commerce, the Administrator of the Small Business Administration, the Governor of Alaska, and two independent scientists in the fields of ocean biology and ecology.

REPEALER

SEC. 305. Such provisions of the Fur Seal Act of 1966 which are inconsistent herewith are hereby repealed.

[H.R. 10420, H.R. 10814, 92d Cong., first sess.]

BILLS To protect marine mammals; to establish a Marine Mammal Commission; and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Marine Mammal Protection Act of 1971".

FINDINGS AND DECLARATION OF POLICY

SEC. 2. The Congress finds that—

(1) certain species and population stocks of marine mammals are, or may be, in danger of disappearance as a result of man's activities;

(2) such species and population stocks should not be permitted to diminish beyond the point at which they can maintain that equilibrium at which they may be managed on an optimum sustained yield basis, and measures should be immediately taken to replenish any species or population stock which has already diminished beyond that point;

(3) there is inadequate knowledge of the population dynamics of such marine mammals and of the factors which bear upon their ability to reproduce themselves successfully;

(4) negotiations should be undertaken, as soon as possible to encourage the development of international arrangements for research on, and conservation of, marine mammals; and

(5) marine mammals have proven themselves to be resources of great international significance, esthetic and recreational as well as economic, and it is the sense of the Congress that they should be protected to the greatest possible extent commensurate with sound policies of resource management.

DEFINITIONS

Sec. 3. For the purposes of this Act—

(1) The term "marine mammal" means any seal, whale, walrus, dugong, manatee, sea otter, sea lion, polar bear, porpoise, or dolphin.

(2) The term "population stock" means a group of interbreeding marine mammals of the same species or smaller taxa in a common spatial arrangement.

(3) The term "Secretary" means the Secretary of the Interior.

(4) The term "take" means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal; but such term does not include the taking of marine mammals which occurs as an incident to commercial fishing operations.

(5) The term "waters under the jurisdiction of the United States" means—

(A) the territorial sea of the United States, and

(B) the fisheries zone established pursuant to the Act of October 14, 1966 (80 Stat. 908, 16 U.S.C. 1091–1094).

Title I—Conservation and Protection of Marine Mammals

PROHIBITIONS

Sec. 101. Except as provided in sections 102, 107, and 109 of this title, it is unlawful—

(1) for any person subject to the jurisdiction of the United States or any vessel subject to the jurisdiction of the United States to take any marine mammal on the high seas;

(2) for any person or vessel to take any marine mammal in waters under the jurisdiction of the United States or on land appurtenant thereto;

(3) for any person to use any port, harbor, or other place under the jurisdiction of the United States for any purpose in any way connected with acts prohibited under paragraphs (1) and (2) of this section; and

(4) for any person to engage in any of the following acts with respect to marine mammals or parts of marine mammals (including raw, dressed, or dyed fur or skins) taken in violation of this section after the effective date of this title:

(A) possess any such mammal or part thereof.

(B) transport, sell, or offer for sale any such mammals or part thereof in interstate commerce, and

(C) import any such mammal or part thereof into the United States.

LIMITATIONS ON TAKING OF MARINE MAMMALS

Sec. 102. (a) The Secretary, after notice and opportunity for public hearing, shall prescribe such limitations with respect to the taking of each species of marine mammal (including limitations on the taking of individuals within population stocks) as he deems necessary and appropriation to insure that such species or population stock within waters under the jurisdiction of the United States—

(1) is not threatened with extinction, disappearance, or undue attrition whether by natural or manmade causes, and

(2) can be managed on a substained-yield basis.

(b) The limitation prescribed under subsection (a) of this section for any species or population stock of marine mammal may include, but are not limited to, restrictions with respect to—

(1) the number of animals which may be taken in any calendar year pursuant to permits issued under section 103;

(2) the age, size, or sex (or any combination of the foregoing) of animals which may be taken, whether or not a quota prescribed under paragraph (1) of this subsection applies with respect to such animals;

(3) the season or other period of time within which animals may be taken; and

(4) the manner and location in which animals may be taken.

(c) Before prescribing any annual quota under paragraph (1) of subsection

(b) of this section, the Secretary shall, in addition to any other requirements imposed by law with respect to agency rulemaking, publish and make available to the public—

(1) a statement of the existing levels of the species and population stocks of the marine mammal concerned;

(2) a statement of the expected impact of the proposed quota on such species or population stock; and

(3) any studies made by, or for, the Secretary or the Marine Mammal Commission which relate to the establishment of such quota.

(d) Any limitation prescribed pursuant to this section shall be periodically reviewed, and may be modified from time to time in such manner as the Secretary deems necessary to carry out the purposes of this Act.

PERMITS

SEC. 103. (a) The Secretary may issue permits, after notice and opportunity for public hearing, which authorize the taking of any ocean mammal.

(b) Any permit issued under this section shall—

(1) be consistent with any applicable limitation established by the Secretary under section 102, and

(2) specify—

(A) the number and kind of animals which are authorized to be taken,

(B) the location and manner (which manner must be determined by the Secretary to be humane) in which they may be taken.

(C) the period during which the permit is valid, and

(D) any other terms or conditions which the Secretary deems appropriate.

(c) The Secretary may modify, suspend, or revoke in whole or part the terms and conditions of any permit issued by him under this section—

(1) in order to make any such permit consistent with any change made after the date of issuance of such permit with respect to any applicable limitation prescribed under section 102, and

(2) in any case in which a violation of the terms and conditions of the permit is found.

Any modification, suspension, or revocation of a permit under this subsection shall take effect at the time notice thereof is given to the permittee. The permittee shall then be granted opportunity for expeditious hearing by the Secretary with respect to such modification, suspension, or revocation.

(d) Any permit issued under this section must be in the possession of the person to whom it is issued (or an agent of such person) during—

(1) the time of the authorized taking;

(2) the period of any transit of such person or agent which is incident to such taking; and

(3) any other time while any marine mammal taken under such permit is in the possession of such person or agent.

(e) The Secretary shall prescribe such procedures as may be necessary to carry out this section, including the manner and form in which application for permits may be made and the information which should accompany with an application to enable the Secretary to review and evaluate the proposed taking.

PENALTIES

SEC. 104. (a) Any person who violates any provision of this title or any regulation issued thereunder may be assessed a civil penalty by the Secretary or not more than $5,000 for each such violation. No penalty shall be assessed unless such person is given notice and opportunity for a hearing with respect to such violation. Each violation shall be a separate offense. Any such civil penalty may be compromised by the Secretary. Upon any failure to pay a penalty assessed under this subsection, the Secretary may request the Attorney General to institute a civil action in a district court of the United States for any district in which such person is found, resides, or transacts business to collect the penalty and such court shall have jurisdiction to hear and decide any such action. In hearing such action, the court may review the violation and the assessment of the civil penalty de novo.

(b) Any person who knowingly violates any provision of this title or any regulation issued thereunder shall, upon conviction, be fined not more than $10,000, or imprisoned for not more than one year, or both.

FORFEITURE

SEC. 105. (a) Any vessel subject to the jurisdiction of the United States that is employed in any manner in connection with a violation of the provisions of this title, including its tackle, apparel, furniture, appurtenances, cargo, and stores, shall be subject to forfeiture and all marine mammals or parts thereof, taken or retained in violation of this title or the monetary value thereof shall be forfeited.

(b) All provisions of law relating to the seizure, summary, and judicial forfeiture, and condemnation of a vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores, for violation of the customs law, the disposition of such vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores, or the proceeds from the sale thereof, and remission or mitigation of such forfeitures shall apply to seizures and forfeitures incurred, or alleged to have been incurred, under the provisions of this title, insofar as such provisions of law are applicable and not inconsistent with the provisions of this title.

ENFORCEMENT

SEC. 106. (a) The Secretary shall enforce the provisions of this title. The Secretary may utilize, by agreement, the personnel, services, and facilities of any other Federal agency for purposes of enforcing this title.

(b) The Secretary may also designate officers and employees of any State or of any possession of the United States to enforce the provisions of this title. When so designated, such officers and employees are authorized to function as Federal law enforcement agents for these purposes, but they shall not be held and considered as employees of the United States for the purposes of any laws administered by the Civil Service Commission.

(c) The judges of the United States district courts and the United States commissioners may, within their respective jurisdictions, upon proper oath or affirmation, showing probable cause, issue such warrants or other process, including warrants or other process issued in admiralty proceedings in Federal district courts, as may be required for enforcement of this title and any regulations issued thereunder.

(d) Any person authorized by the Secretary to enforce this title may execute any warrant or process issued by any officer or court of competent jursdiction for the enforcement of this title.

(e) Such person so authorized may—

(1) with or without warrant or other process, arrest any person committing in his presence of view a violation of this title or the regulations issued thereunder;

(2) with a warrant or other process or without a warrant, if he has reasonable cause to believe that a vessel subject to the jurisdiction of the United States or any person on board is in violation of any provision of this title or the regulations issued thereunder, to search such vessel and to arrest such person;

(3) seize any vessel subject to the jurisdiction of the United States, together with its tackle, apparel, furniture, appurtenances, cargo, and stores, used or employed contrary to the provisions of this title or the regulations issued hereunder or which reasonably appears to have been so used or employed; and

(4) seize, whenever and wherever found, all marine mammals or parts thereof taken or retained in violation of this title or the regulations issued thereunder and shall dispose of them in accordance with regulations prescribed by the Secretary.

EXCEPTIONS

SEC. 107. (a) The provisions of this title shall not apply with respect to the taking of any marine mammal by Indians, Aleuts, or Eskimos who dwell on the coasts of the North Pacific or Arctic Oceans if such taking (1) is done solely in accordance with customary traditions as an adjunct of the native culture, and (2) is not done for purposes of direct or indirect commercial sale or resale. The provisions of this title shall apply to Indians, Aleuts, and Eskimos who are employed by any person for the purpose of taking marine mammals, or who are under contract or agreement to deliver the skins of any marine mammals to any person.

(b) (1) Nothing in this title shall prohibit any person deemed qualified by the Secretary from obtaining written consent from the Secretary to capture on his own account and in a humane manner any marine mammal for (A) public display or educational purposes, or (B) for legitimate scientific or medical research.

(2) The Secretary shall by regulation specify the methods of capture, supervision, and transportation applicable in the case of marine mammals captured under the authority of this subsection.

(3) Any person authorized to take a marine mammal under this subsection shall be required by the Secretary to furnish a report on his activities pursuant to such authority. Such report shall be made to the Secretary as soon as practicable after the close of any expedition made for the purpose of such taking, whether or not any marine mammal was taken during such expedition.

INTERNATIONAL PROGRAM

SEC. 108. The Secretary, in cooperation with the Secretary of State and other appropriate Federal officers and agencies, shall develop an international program for the protection of marine mammals and shall take every possible step to encourage the adoption of international arrangements which would be appropriate for effectuating such program.

COOPERATION WITH STATES

SEC. 109. The Secretary is authorized and directed to develop cooperative arrangements with the appropriate officials of the several States for the conservation and protection of marine mammals. Such arrangements shall prescribe the circumstances under which marine mammals which pass through or reside within the territorial waters of any State may be taken, and any marine mammal taken within the scope of such cooperative arrangements shall be deemed to have been lawfully taken within the meaning of this title.

NORTH PACIFIC FUR SEAL CONVENTION

SEC. 110. The Secretary shall undertake an immediate review of the current activities involved in the taking of fur seals on the Pribilof Islands for the purpose of determining whether such activities are consistent with the purposes and policy of this Act. If, as a result of such review, the Secretary determines that such activities should be significantly curtailed or terminated, then during the time commencing with the date of such curtailment or termination and ending on the date of the expiration of the International Convention for the Conservation of North Pacific Fur Seals, Japan and Canada, for each annual period occuring within such time, shall each be given the opportunity to select one of the following options in lieu of receiving the fur seal skins to which such country would otherwise be entitled—

(1) the average dollar value (based on the average dollar value received for fur seal skins during the five-year period immediately preceding such date of curtailment or termination) of the fur seal skins to which such country would otherwise be entitled during the annual period concerned; or

(2) Nine thousand fur seal skins, to be shipped directly to such country from the Pribilof Islands.

In any case in which Japan or Canada elects to take the skins, under clause (B) of the preceding sentence, the killing of the seals shall be done in the manner prescribed by the Secretary, taking into account the desirability of preserving and improving the genetic stock of the Pribilof herd of seals. This section shall be interpreted so as to give maximum effect to such Convention.

REGULATIONS

SEC. 111. The Secretary shall prescribe such regulations as are necessary and appropriate to carry out the purposes of this title.

APPLICATION TO OTHER LAWS AND CONVENTIONS

SEC. 112. The provisions of this title shall be deemed to be in addition to the provisions of any other law, treaty, or convention which may otherwise apply to the taking of marine mammals.

APPROPRIATIONS

SEC. 113. There are authorized to be appropriated such sums as may be necessary to carry out this title.

EFFECTIVE DATE

SEC. 114. This title shall take effect one hundred and eighty days after the date of its enactment.

TITLE II—MARINE MAMMAL COMMISSION

ESTABLISHMENT OF COMMISSION

SEC. 201. (a) There is hereby established the Marine Mammal Commission (hereafter referred to in this title as the "Commission").

(b) The Commission shall be composed of three members who shall be appointed by, and serve at the pleasure of, the President. The President shall make his selection from a list, submitted to him by the Chairman of the Council on Environmental Quality, of individuals knowledgeable in the fields of marine ecology and resource management. No member of the Commission may, during his period of service on the Commission, hold any other position as an officer or employee of the United States, except as a retired officer or retired civilian employee of the United States.

(c) The President shall designate a Chairman of the Commission (hereafter referred to in this title as the "Chairman") from among its members.

(d) Members of the Commission may each be compensated at the rate of $100 for each day such member is engaged in the actual performance of duties vested in the Commission. Each member shall be reimbursed for travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5, United States Code, for persons in Government service employed intermittently.

(e) The Commission shall have an Executive Director, who shall be appointed by the Chairman with the approval of the Commission and shall be paid at a rate not in excess of the maximum rate for GS–18 of the General Schedule under section 5332 of title 5, United States Code. The Executive Director shall have such duties as the Chairman may assign.

DUTIES OF COMMISSION

SEC. 202. (a) The Commission shall—

(1) undertake a comprehensive review and study of the activities of the United States pursuant to existing laws and international conventions relating to marine mammals, including, but not limited to, the International Convention for the Regulation of Whaling, the International Convention on the Conservation of North Pacific Fur Seals, and the Fur Seal Act of 1966;

(2) conduct a continuing review of the condition of the stocks of marine mammals, of methods for their management, and of humane means of taking marine mammals;

(3) undertake or cause to be undertaken such studies as it deems necessary or desirable for determining the need for additional measures for the protection and management of marine mammals;

(4) recommend to the Secretary and to other Federal officials such steps as it deems necessary or desirable for the protection and management of marine mammals;

(5) recommend to the Secretary such revisions of the Endangered Species List, authorized by the Endangered Species Conservation Act of 1969, as may be appropriate with regard to marine mammals; and

(6) recommend to the Secretary, other appropriate Federal officials, and Congress such additional measures as it deems necessary or desirable to further the policies of this Act, including provisions for the protection of the Indians, Eskimos, and Aleuts whose livelihood may be adversely affected by actions taken pursuant to this Act.

(b) The Commission shall consult with the Secretary at such intervals as it or he may deem desirable, and shall furnish its reports and recommendations to him, before publication, for his comment.

(c) The activities of the Commission, and the reports and recommendations which it makes, as well as all comments and correspondence in regard to such reports and recommendations, shall be matters of public record and shall be available to the public at all reasonable times. The Commission shall furnish to the Council on Environmental Quality copies of any such reports, recommendations, and related comments that are made by Federal, State, or local agencies.

(d) Any recommendations made by the Commission to the Secretary and other Federal officials shall be responded to by those individuals within ninety days after receipt thereof. Any recommendations which are not followed or adopted shall be rereferred to the Commission together with a detailed explanation of the reasons why those recommendations were not followed or adopted.

COMMITTEE OF SCIENTIFIC ADVISORS ON MARINE MAMMALS

Sec. 203. The Commission shall establish, within ninety days after its establishment, a Committee of Scientific Advisors on Marine Mammals (hereafter referred to in this title as the "Committee"). Such Committee shall consist of nine scientists knowledgeable in marine ecology and marine mammal affairs appointed by the Chairman with the advice of the Director of the National Science Foundation, the Chairman of the National Academy of Science, and the Secretary of the Smithsonian Institution. The Commission shall consult with the Committee on all studies and recommendations which it may propose to make or has made, and any recommendations made by the Committee or any of its members which are not adopted by the Commission shall be transmitted by the Commission to the appropriate Federal agency and to Congress with a written explanation of the Commission's reasons for not accepting such recommendations.

COMMISSION REPORTS

Sec. 204. The Commission shall transmit to Congress, by January 31 of each year, a report which shall include—

(1) a comprehensive description of the activities and accomplishments of the Commission during the immediately preceding year; and

(2) all the findings and recommendations made by the Commission pursuant to section 202, together with the responses made to its recommendations by the appropriate Federal agencies.

COORDINATION WITH OTHER FEDERAL AGENCIES

Sec. 205. The Commission shall have access to all studies and data compiled by Federal agencies regarding marine mammals. With the consent of the appropriate Secretary or Agency head, the Commission may also utilize the facilities or services of any Federal agency and shall take every feasible step to avoid duplication of research and other efforts in carrying out the purposes of this Act.

ADMINISTRATION OF COMMISSION

Sec. 206. The Commission, in carrying out its responsibilities under this title, may—

(1) employ and fix the compensation of such personnel;

(2) acquire, furnish, and equip such office space;

(3) enter into such contracts or agreements with other organizations, both public and private, including the Committee; and

(4) incur such necessary expenses and exercise such other powers,

as are consistent with and reasonably required to perform its functions under this title. Financial and administrative services (including those related to budgeting, accounting, financial reporting, personnel, and procurement) shall be provided the Commission by the General Services Administration, for which payment shall be made in advance, or by reimbursement from funds of the Commission in such amounts as may be agreed upon by the Chairman and the Administrator of the General Services Administration.

AUTHORIZATIONS

Sec. 207. There are authorized to be appropriated for the fiscal year in which this title is enacted and for the next two fiscal years thereafter such as may be necessary to carry out this title, but the sums appropriated for any such year shall not exceed $1,000,000.

[H.R. 10569, H.R. 10803, 92d Cong., first sess.]

BILLS To protect ocean mammals from being pursued, harassed, or killed, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following Act may be cited as the "Ocean Mammal Protection Act of 1971".

TITLE I—FINDINGS AND DECLARATIONS OF POLICY

FINDINGS

SEC. 101. The Congress finds that ocean mammals are being ruthlessly pursued, harassed, and killed, both at sea and on land by hunters of many nations of the world.

The Congress further finds that many ocean mammals will become rare, if not extinct, unless steps are taken to stop their slaughter.

DECLARATIONS OF POLICY

SEC. 102. (a) It is hereby declared to be the public policy of the United States to protect all ocean mammals from harassment or slaughter.

(b) It is hereby declared to be the further public policy of the United States that negotiations should be undertaken with foreign governments and through interested international organizations with a view to obtaining a worldwide ban on the further slaughter of ocean mammals.

TITLE II—GENERAL PROHIBITIONS

DEFINITIONS

SEC. 201. For the purpose of this title—

(a) "ocean mammals" means all seal, whale, walrus, manatee or sea cow, sea otter, sea lion, polar bear, porpoise, and dolphin;

(b) "person" includes individual, partnership, corporation, association, and Federal and State agencies; and

(c) the terms "take" or "taking" or "taken" mean to harass, pursue, hunt, shoot, dynamite, capture, collect, kill, or attempt to harass, pursue, hunt, shoot, dynamite, capture, collect, or kill.

PROHIBITIONS

SEC. 202. (a) It is unlawful, except as provided in section 203 of this title or in title III, for any person or vessel subject to the jurisdiction of the United States to engage in the taking of ocean mammals either on the high seas or on lands or waters under the jurisdiction of the United States, or use any port or harbor or other place under the jurisdiction of the United States for any purpose connected in any way with such taking, or for any person to transport, import, offer for sale, or possess at any port or place or on any vessel, subject to the jurisdiction of the United States, ocean mammals or the parts of ocean mammals taken after the enactment of this Act, including but not limited to, raw, dressed, or dyed fur or skins.

(b) The possession of ocean mammals or any part thereof by any person contrary to the provisions of this Act shall constitute prima facie evidence that ocean mammal or part thereof was taken, purchased, sold, or transported in violation of the provisions of this Act or the regulations issued thereunder.

EXCEPTIONS FOR INDIANS, ALEUTS, AND ESKIMOS

SEC. 203. (a) Indians, Aleuts, and Eskimos who dwell on the coasts of the North Pacific or Arctic Oceans are permitted to take ocean mammals (except polar bears) for their own use but not for sale: *Provided, however,* That such taking must be done in accordance with customary traditions and as an adjunct of the native culture.

(b) The authority contained in this section shall not apply to Indians, Aleuts, and Eskimos who are employed by any person under the provisions of the Fur Seal Act of 1966 or title III of this Act for the purpose of taking ocean mammals, or who are under contract or agreement to deliver the skins to any person.

EXCEPTIONS FOR MEDICAL AND SCIENTIFIC RESEARCH AND FOR MUNICIPAL AND/OR OTHER NONPROFIT ZOOS

SEC. 204. (a) Nothing herein shall be considered to be a prohibition against municipal and/or other nonprofit zoos from obtaining written consent from the Secretary of the Interior to humanely capture a representative number of the ocean mammals herein defined for replacement for deceased or otherwise ailing members of these species in these zoos.

(b) Further, nothing herein shall be construed to be a prohibition against the humane capture of a select number of these species of ocean mammals for certificable scientific and/or medical research.

(c) Regulations shall be promulgated by the Secretary of Interior for the purposes of subsections (a) and (b) above as to who shall be granted permission and for what purposes. Further, methods of capture, supervision, and transportation shall be subjects of said regulations by the Secretary.

FORFEITURE

SEC. 205. (a) Every vessel subject to the jurisdiction of the United States that is employed in any manner in connection with a violation of the provisions of this title, including its tackle, apparel, furniture, appurtenances, cargo, and stores shall be subject to forfeiture and all ocean mammals or parts thereof taken or retained in violation of this title or the monetary value thereof shall be forfeited.

(b) All provisions of law relating to the seizure, summary, and judicial forfeiture, and condemnation of a vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores for violation of the customs laws, the disposition of such vessel, including its tackle, apparel, furniture, appurtenances, cargo, and stores, or the proceeds from the sale thereof and remission of mitigation of such forfeitures shall apply to seizures and forfeitures incurred, or alleged to have been incurred, under the provisions of this title, insofar as such provisions of law are applicable and not inconsistent with the provisions of this title.

ENFORCEMENT

SEC. 206. (a) Enforcement of the provisions of this title is the joint responsibility of the Secretaries of State, Treasury, Interior, Commerce, and Transportation. In addition, the Secretary of Interior may designate officers and employees of the States of the United States to enforce the provisions of this Act, which relates to persons or vessels subject to the jurisdiction of the United States. When so designated, such officers and employees are authorized to function as Federal law enforcement agents for these purposes, but they shall not be held and considered as employees of the United States for the purposes of any laws administered by the Civil Service Commission.

(b) The judges of the United States district courts and the United States commissioners may, within their respective jurisdictions, upon proper oath or affirmation, showing probable cause, issue such warrants or other process, including warrants or other process issued in admiralty proceedings in Federal district courts, as may be required for enforcement of this title and any regulations issued thereunder.

(c) Any person authorized to carry out enforcement activities hereunder shall have the power to execute any warrant or process issued by any officer or court of competent jurisdiction for the enforcement of this title.

(d) Such person so authorized shall have the power—

(1) with or without warrant or other process, to arrest any person committing in his presence or view a violation of this title or the regulations issued thereunder; and

(2) with a warrant or other process or without a warrant, if he has reasonable cause to believe that a vessel subject to the jurisdiction of the United States or any person on board is in violation of any provision of this title or the regulations issued thereunder, to search such vessel and to arrest such person.

(e) Such person so authorized may seize any vessel subject to the jurisdiction of the United States, together with its tackle, apparel, furniture, appurtenances, cargo, and stores, used or employed contrary to the provisions of this title or the regulations issued hereunder or which it reasonably appears has been used or employed contrary to the provisions of this title or the regulations issued hereunder.

(f) Such person so authorized may seize, whenever and wherever found, all ocean mammals or parts thereof taken or retained in violation of this title or the regulations issued thereunder and shall dispose of them in accordance with such regulations.

SEC. 207. The Secretaries of State, Treasury, Interior, Commerce, and Transportation are authorized to issue regulations to carry out the provisions of this title.

SEC. 208. Any person violating the provisions of this title or the regulations issued thereunder shall on the first offense be fined not more than $5,000 or imprisoned not more than one year, or both; on conviction of second and subsequent offenses, the violator shall be fined not more than $10,000 or jailed for not less than one nor more than three years, or both.

SEC. 208. Title III (Protection of Sea Otters on the High Seas) of Public Law 89–702 is hereby repealed.

TITLE III—TREATIES AND CONVENTIONS

NEGOTIATIONS FOR PROTECTIVE TREATIES

SEC. 301. It is the sense of Congress that the Secretary of State should immediately initiate worldwide negotiations for the purpose of obtaining an international agreement or agreements for the protection of all ocean mammals as enumerated in section 201(a).

TO OUTLAW KILLING

SEC. 302. Such treaties or conventions should seek to outlaw all killing of these mammals for any reason.

REPORT BY SECRETARY OF STATE

SEC. 303. The Secretary should report in full his efforts under this title twelve months from the date of enactment of this bill.

TITLE IV—NORTH PACIFIC FUR SEALS

TERMINATION OF NORTH PACIFIC FUR SEAL CONVENTION

SEC. 401. It is the sense of the Congress that the North Pacific Fur Seal Convention, signed on February 9, 1957, should not be continued after its current termination date in 1976.

Further, it is the sense of the Congress that the Secretary of State should immediately initiate negotiations with the parties to the convention and any other concerned States for the purpose of obtaining an international agreement or agreements to ban all killing of North Pacific fur seals whether at sea or on land.

Such a treaty would take the place of the present convention and would take effect immediately upon its signing.

INTERIM ARRANGEMENTS

SEC. 402. And until such treaty can be successfully negotiated, no further North Pacific fur seals shall be killed to fill the United States "quota" (70 per centum) under the terms of the North Pacific Fur Seal Convention; all skins or parts thereof of the Alaskan fur seal shall be banned from import into the United States or in interstate commerce between the States; any agreement under section 104 of the Fur Seal Act of 1966 for the processing of skins in any State other than Alaska shall be terminated.

(b) To honor our treaty provisions, between the enactment of this Act and the expiration of the North Pacific Fur Seal Convention, Japan and Canada shall be given the option of taking the average dollar value (over the last five years) of the 15 per centum of the kill to which they are entitled or to take nine thousand skins each, to be shipped directly from the Pribilof Islands to those countries. If Japan or Canada elects to take the skills, the killing in the Pribilofs shall be done in the most humane manner and as close to the shore as possible. Further, to the extent practicable, such killings shall first be of old or crippled bachelor seals and second of old or crippled female seals; no seal under one year of age shall be killed.

RENEWAL OF PRESENT CONVENTION

SEC. 403. If such treaty cannot be successfully negotiated prior to the expiration date of the existing North Pacific Fur Seal Convention, nothing herein shall preclude the renegotiation and renewal of said present convention, and in fact, to preclude the possibility of a return to pelagic sealing, such present convention should be renewed on or before its expiration date.

HUMANE METHODS

SEC. 404. If the only recourse is to renew the convention as stipulated in section 403, every effort shall be made to see that those seals killed under the provisions of this Act shall be killed by the most modern, rapid, and humane methods of rendering the seals unconscious.

REPORT OF SECRETARY

SEC. 405. The Secretary of Commerce shall report his findings and efforts under section 404 to the Congress within six months of the application of section 404.

ESTABLISHMENT OF PRIBILOF SEAL ROOKERY

SEC. 406. The Pribilof Islands shall be designated a National Seal Rookery Preserve and Bird Sanctuary under the Department of Interior; and the native Aleuts shall be trained and employed for any jobs to be created thereunder.

PRIBILOF ISLANDS COMMISSION

SEC. 407. The President, with the advice and consent of the Senate, shall appoint a Commission to help in the transfer of the Pribilof Islands from a place of killing into a preserve, to help promote tourism, and to develop an economy on the island for the Aleuts to take the place of their participation in the slaughter of the seals.

The Commission shall be comprised of a number of Pribilof Aleut natives, and it shall include the Secretaries or their designates from the Departments of State, Treasury, Commerce, the Administrator of the Small Business Administration, the Governor of Alaska, and two independent scientists in the fields of ocean biology and ecology.

REPEALER

SEC. 408. Such provisions of the Fur Seal Act of 1966 which are inconsistent herewith are hereby repealed.

[H. Con. Res. 77, H. Con. Res. 173, 92d Cong., first sess.]

CONCURRENT RESOLUTION

Whereas the Congress recognizes that an international convention between the United States, Canada, Japan, and Russia regulates the harvesting and number of Northern fur seals in the Bering Sea; and

Whereas the Congress recognizes that such convention has succeeded in maintaining a stabilized balance of Northern fur seals; and

Whereas the Congress recognizes that such convention has thereby prevented the extinction of the Northern fur seal; and

Whereas the Congress further recognizes that the present harvesting is conducted in a brutal manner by the clubbing of the seals, which renders the seals unconscious but not dead: Now, therefore, be it

Resolved by the House of Representatives (*the Senate concurring*), That it is the sense of the Congress of the United States that the Secretary of the Interior shall prescribe and shall implement with all possible speed and urgency regulations for the harvesting of Northern fur seals which insure that the seals are quickly and painlessly killed before skinning.

Further, that appropriate and effective penalties be prescribed by the Secretary of the Interior for violation of the regulations which he shall prescribe and implement in accordance with this resolution.

General Counsel of the Department of Commerce,
Washington, D.C., September 30, 1971.

Hon. Edward A. Garmatz,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives, Washington, D.C.

Dear Mr. Chairman: This is in reply to your request for the views of this Department with respect to H.R. 6554, a bill "to protect ocean mammals from being pursued, harassed, or killed; and for other purposes."

Our comments on this bill also apply to H.R. 6558 and H.R. 8183, and to H.R. 7463, a similar bill which applies only to seals.

H.R. 6554 would prevent the taking of any marine mammals by U.S. citizens; or the transportation, import, or offer for sale of ocean mammals or parts thereof. Section 203 would exempt Indians, Aleuts, and Eskimos of the North Pacific and Arctic who could take marine mammals (except for polar bear) for their own use but not for sale, provided this was done in accordance with customary traditions and as part of the native culture. Section 206 addresses itself to the enforcement of the act and the penalties for violations. Title III deals specifically with the North Pacific fur seal and the present Interim Convention on the Conservation of the North Pacific Fur Seals. Section 301 states that it is the sense of Congress that the treaty should be permitted to expire in 1976 and that the United States should immediately notify the other signatories that it does not intend to extend the treaty and that the Secretary of State should open negotiations for a new treaty to ban all killing of Northern Pacific fur seals. Section 302 provides that the United States would no longer kill fur seals for its 70 percent share of skins under the treaty and between the enactment of the bill and the expiration of the convention would either make a cash payment to both Canada and Japan for their respective 15 percent of the harvest or would harvest that many seals for those countries if they preferred to receive the skins. Section 303 would designate the Pribilof Islands as a national seal rookery preserve and bird sanctuary under the Department of the Interior, and would provide that the Aleuts would be given the opportunity to be the rangers and guides. Section 404 would provide for a commission to help in promoting tourism and developing an economy for the Aleuts in place of the seal harvest.

We recommend against enactment of H.R. 6554.

We do not believe that a blanket ban on the taking of marine mammals by U.S. citizens and on the importation of marine mammals or their parts is either needed or a wise approach to the conservation of the animals involved. However, we recognize the legitimate concern of citizens for the proper conservation and management of all the species. Accordingly, in a separate report to your Committee on H.R. 10420, we have addressed the need for augmentation by statute of existing research and regulatory authority in this area. Also in that report, we have recommended that a comprehensive review and study of policies regarding marine mammals be undertaken by an independent Commission, which would make recommendations to the responsible Federal agencies.

Except for the Pribilof Islands fur seals, marine mammals off the coasts of the United States are actually little utilized by U.S. citizens. Few products of marine mammals are imported into the United States. In fact, fur sealskins, which at one time were used primarily in the United States, have found a greater acceptance in Europe and in recent sales over 80 percent of the skins were bought by European buyers. (The United States does import a quantity of whale products, but these imports are scheduled to cease by the end of 1971 under the provisions of the Endangered Species Conservation Act of 1969.) The relatively small take of marine mammals in the United States that does occur is primarily in Alaska. According to our information about 300 polar bears are taken annually by big-game hunters. Some walruses are taken by the Eskimos for food, skins and sale of carved ivory, and some hair seals are taken for food, clothing, and the sale of skins, or clothing (such as mukluks) made from the skins. The State of Alaska also conducts a small annual harvest of sea otters in some overpopulated colonies. A few whales are taken by the natives of Alaska for their own use and about 5,000 sea lions are harvested each year.

The Secretary of Commerce announced on April 19, 1971, that whaling from the United States for species of whales on the Endangered Species List would be stopped as of December 31, 1971. Further sea mammal protection is also contained in the Fur Seal Act of 1966 which not only provides for management of the fur seals of the Pribilof Islands, but also provides for total protection of sea otters on the high seas beyond the territorial waters of the United States. Laws of the State of Alaska prevent the taking of sea otters inside the territorial waters, except for the State controlled program. A very small number of marine mammals are shot by fishermen who are protecting their catch and gear. While it is true that a few are shot by irresponsible individuals, in violation of either Federal or State laws, we believe the solution lies in improved enforcement of the existing laws rather than the enactment of legislation banning the taking of all marine mammals. In all these instances the numbers of animals involved are insignificant in terms of total populations. Some marine mammals are taken incidentally during commercial fishing operations. We believe that further research is needed to determine the significance.

The enactment of H.R. 6554 would:

1. Prevent the Aleuts, Eskimos, and Indians of several States, but primarily Alaska, from following their present practice of selling both the skins of hair seals and polar bears, and the carved walrus ivory which are excess to their immediate needs, for a cash income. In many cases this cash income is a large part of their total income.
2. Prevent the State of Alaska from conducting the State controlled harvest of the presently overpopulated colonies of sea otters. A number of Aleuts gain yearly employment during this harvest in catching, skinning, and giving primary treatment to the skins. This harvest has been carried out for about six years in various areas of the Aleutian Islands where research has shown that overpopulations of sea otters and resultant large dieoffs of these animals have occurred.
3. Prevent the protection by commercial fishermen of their catch and gear from the depredations of hair seals and sea lions. In several localities in Alaska and the Northwest, hair seals and sea lions often do considerable damage resulting in economic loss to fisherman by removing or damaging fish in their gear and by tearing large holes in fishermen's nets.
4. Prevent the harvest for food and profit of marine mammals, primarily harbor seals, by the non-aboriginal inhabitants of small coastal communities in Alaska and the Northwest. Historically all peoples living in these areas have made use of the local fish and wildlife for part of their subsistence and for a small cash income.
5. Negate the power of the several coastal States to regulate and manage marine mammal species which reside primarily in State waters. These species include sea otters, sea lions, and harbor seals.
6. Probably result in the resumption of high seas sealing for northern fur seals by several other countries thus reverting back to the unselective and destructive method of sealing which was utilized prior to the 1911 convention.

Title III of the Act addresses itself entirely to the Pribilof fur seal and the Aleuts who reside there. The northern fur seal has been the subject of the world's outstanding example of international cooperation in conservation of living resources (Interim Convention on the Conservation of North Pacific Fur Seals, 8 UST 2283, effective October 14, 1957). Under the auspices of the convention first signed in 1911 the Pribilof fur seal herd has been brought from near extinction (less than 200,000 animals) to the present near optimum population of about 1.3 million. This recovery was the result of scientific management of the fur seal herd by prohibiting the harvest at sea (pelagic) and controlling the harvest on land. On land it is possible to follow specific scientific recommendations and procedures to maintain the fur seal population at its optimum level. At present, only 3–5 year old male seals excess to the reproductive needs of the herd are taken. At sea this kind of selectivity is not possible. There is no way to determine the age or sex of seal when it is swimming in the ocean. If a female seal, with a pup back on the islands, is killed in the ocean, her pup will also die because no other female seal will take care of it. Also many seals are either wounded (to die later) or killed and not recovered from the ocean during the pelagic sealing operations.

This bill, if passed, would end this outstanding international conservation effort, and probably lead to the decimation of the fur seal herd itself. If the Convention is permitted to expire in 1976 (as the bill provides) and the fur seal herd is not fully utilized (as the bill provides) other countries might very likely resume high seas (pelagic) sealing in order to supply the world market for fur sealskins. Japan, for instance, is not likely to agree to a world ban on killing fur seals when the European market can use the skins. Other nations, North and South Korea, for example, which have not been involved in sealing might consider it if the international pressure against it is gone by virtue of the Convention being abolished.

Although this bill does not directly address the issue of humaneness, we believe one of the underlying rationales for its introduction was alleged brutality in the harvest of fur seals. This issue has been met.

The method of killing fur seals, a single blow on the fragile skull immediately followed by sticking, has been criticized by many groups. The present killing method fully conforms to the Humane Slaughter Act and compares favorably with the methods used in slaughtering livestock. Over the years, questions concerning killing methods have been raised not only by Government scientists, but also by representatives of leading animal protection societies. However, after a visit to the Pribilof Islands in 1968, Dr. Elizabeth Simpson of the World Federation for the Protection of Animals reported:

"In conclusion, I find that from my observation of herding and killing methods and from post mortem findings, that the Pribilof fur seal harvest is at present being carried out in a reasonably humane fashion, which could however be improved by attention to a few details. The method of killing the 4 and 5 year old fur seals, that of clubbing, is a primitive method, and one which is subject to human error, but the safeguards of using only experienced men to do the clubbing. of supervising them closely, of limiting the length of time they work, of payment by time and not by piece, and the fact that the killing takes place on land and at temperatures of about 50° F, appears to result in the method being used effectively. The finding of only 1.9 percent unfractured skulls is a measure of this. The fact that the skull of the immature seals harvested is relatively thin, in comparison with the enormous bony development of the occipital region of the mature bull, makes clubbing practicable. Of other methods of killing large numbers of animals presently available, for example the captive bolt pistol, electrical stunning and CO_2 stunnning prior to sticking. I feel that, given the situation of the fur seal harvest, and the safeguards presently applied to the method of clubbing, followed by efficient sticking, this method is probably the best. Any method involving more handling of the animals would, I feel, be a step in the wrong direction."

Notwithstanding our belief, based on available data, that clubbing is the most humane method of killing fur seals, there was established in 1968 a Task Force to examine alternative methods and to review all harvesting practices on St. Paul Island of the Federal agency responsible for the management of the fur seals. At that time the Federal agency concerned was the Bureau of Commercial Fisheries in the Department of the Interior. (The Bureau of Commercial Fisheries was abolished by Reorganization Plan No. 4 of 1970. The functions of the Bureau of Commercial Fisheries are being carried on by the National Marine Fisheries Service as part of the newly created National Oceanic and Atmospheric Administration, Department of Commerce.) The Task Force included representatives from the former Bureau of Commercial Fisheries, the Bureau of Sport Fisheries and Wildlife, the University of Minnesota (National Science Foundation nominee), the Humane Society of the United States, and the Department of Agriculture. A representative of the International Society for the Protection of Animals was present as an observer.

Consideration was given to asphyxiation, electrocution, shooting, concussion bolts, drugs and tranquilizers during the tests. At the conclusion of exploratory studies, the Task Force reported that none of the alternative methods proposed were then feasible for use in the fur seal harvest. In response to recommendations of the Task Force on driving conditions and animal stress, driving distances have been reduced by about 50 percent, obstacles have been removed from drive paths and additional clubbers have been added to the crew.

Research conducted in 1969 and 1970 by the Virginia Mason Foundation for Medical Education and Research on the present and alternative killing methods has confirmed earlier studies that the present method—a blow on the cranium by a club, followed by immediate sticking of the heart and subsequent bleeding, results in the most rapid death onset of all body tissues. Nevertheless, the Department of Commerce is continuing its research efforts to develop alternative means of killing the animals. Representatives of the American Veterinary Medical Association's Panel on Euthanasia observed the 1971 seal harvest on the Pribilof Islands to evaluate present harvesting techniques in all their aspects and to make recommendations as appropriate. Their report, a copy of which was submitted to the committee, states in part, "clubbing followed by exsanguination constitutes painless, humane euthanasia." In addition, we are planning for new contract research seeking other methods of conducting the harvest.

Section 303 of the bill, in addition to establishing the National Seal Rookery Preserve and Bird Sanctuary states that the native Aleuts should be given the opportunity to become rangers and guides for the preserve. Since March 3, 1869, the islands of St. Paul and St. George of the Pribilof Islands have been a "special reservation for government purposes." The entire group of islands (St. Paul, St. George, Walrus, Otter, and Sea Lion Rock) was included in this reservation on April 21, 1910. This status of a special reservation is still in effect. Section 404 calls for the establishment of a Pribilof Islands Commission which, among other things, is to help promote tourism. It is difficult to imagine that even through the work of the Commission, a large enough tourist industry could be created on the Pribilof Islands to make the ranger and guide proposal feasible as an alternative source of income for the Aleuts. Even if by some means a large tourist industry could be created, the demand for rangers and guides would be so minimal that only a few Aleuts would be thus employed. Furthermore, it should be remembered that the seals, presumably the main tourist attraction, are on the islands only a few months each year. During the remainder of the year, the seals are out in the Pacific Ocean and the islands offer very little, if anything, to attract tourists. We believe the net result would probably be that most of the Aleuts on the Pribilof Islands would be forced to either leave their homes on the islands to seek employment elsewhere, or go on welfare.

In summary, in our opinion, passage of so drastic a measure as a total ban on the taking of marine mammals is not needed since regulatory authority over many mammals already exists. However, as noted above, in those cases where adequate authority does not exist, we have requested additional regulatory and research authority in our report on H.R. 10420.

Further, this bill would have a depressing economic effect on certain small segments of our population, and would be catastrophic for the Aleuts of the Pribilofs. Finally, passage might well cause the resumption of pelagic hunting for fur seals with probably disastrous results to the very animals that the bill is intended to protect.

We have been advised by the Office of Management and Budget that there would be no objection to the submission of this report to the Congress from the standpoint of the Administration's program.

Sincerely,

WILLIAM N. LETSON,
General Counsel.

GENERAL COUNSEL OF THE DEPARTMENT OF COMMERCE,
Washington, D.C., September 10, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for comment on H.R. 10420, a bill "to protect marine mammals; to establish a Marine Mammal Commission; and for other purposes."

This Department believes that regulations imposed on the taking of marine mammals should be based on data from careful studies of the population dynamics and other aspects of such mammals. We believe that with appropriate amendments, H.R. 10420 could provide for such study and at the same time grant the appropriate regulatory authority. To this end we enclose a revised version of the bill incorporating our suggested changes.

Set forth below are some of the major problem areas we see in the present version of H.R. 10420:[1]

This Department takes exception to the assignment of program responsibility in section 3(3). The National Oceanic and Atmospheric Administration of the Department of Commerce is charged with a variety of responsibilities relating to the marine environment and the utilization and conservation of living marine resources pursuant to Reorganization Plan No. 4, October 3, 1970 (84 Stat. 2090). The allocation of authority over marine mammals embodied in this Plan should be maintained until such time as the proposal of this Administration for the creation of the Department of Natural Resources has been acted upon. Accordingly, the revised bill defines "Secretary" in section 3(g) thereof so as to retain the present allocation of authority between the Secretary of Commerce and the Secretary of the Interior.

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[1] All references in the following discussion are to H.R. 10420 as introduced unless expressly stated otherwise.

Section 3 defines the term "marine mammal" in an artificial and undesirably narrow way. Section 3(1) should be more inclusive. The specific reference to an exotic species found only in the waters of Southeastern Asia, the dugong, which is related to the manatee, seems unnecessary. Similarly, there is a redundancy in the listing of whales, porpoises or dolphins since porpoises and whales are both cetaceans, and the term "dolphin" is used either in referring to the bottle-nosed porpoise of North America, or any one of several European species of porpoise—or a game fish of the genus *Coryphaena*. The definition of marine mammals should be more precise.

The exception to the meaning of the term "take" in section 3(4) is overly broad, since it would apparently prevent any limitation on incidental catch of mammals. If studies, which we believe should be undertaken, indicate that some provisions to control such taking be instituted it would be advisable to have appropriate statutory authority to do so. Accordingly, in our revised bill we have changed the definitions of "marine mammal" and "taking" to accommodate the aforesaid criticisms. See sections 3(a) and 3(e) of the revised bill.

Section 3(5)(A) would provide for Federal control over marine mammals in territorial waters. The political ramifications of modifying the explicit grant of jurisdiction over living marine resources in the territorial sea granted to the States by the Submerged Lands Act of 1953 (43 U.S.C. 1301), must be very carefully evaluated. One would have to inquire whether any extension of jurisdiction such as this bill contemplates would be politically advisable or would efficiently utilize Federal and State resources. Moreover, section 3(5)(A) appears to be unnecessary. Those States with resident populations of marine mammals already have in effect appropriate regulations governing the utilization and conservation of those mammals. In addition, they have the resources to implement these regulations on a sound scientific basis. The State of Alaska, for example, has a staff of biologists trained in marine mammal work which is second in size only to that of the National Marine Fisheries Service.

On the other hand, section 102(a) limits the Secretary's authority to promulgate regulations by confining the purpose of such regulations to the protection of marine mammals within the jurisdictional waters of the United States. We believe that this limitation is undersirable and that the Secretary should also have authority to issue regulations which would, to the extent feasible, effectuate the conservation and management of marine mammals found in both the contiguous fishery zone and the high seas.

In view of the foregoing, our revised bill has been amended to authorize the Secretary to issue regulations which would promote the conservation and management of marine mammals in both areas either by directly limiting the taking thereof or by regulating the importation into the United States of such mammals as well as dealing in such mammals within the United States. Our revised bill would also authorize regulation of dealings within the United States in, or the importation into the United States of, any other living marine resources the taking of which affects the conservation and management of marine mammals. See section 5 of the revised bill.

The procedures outlined in the subject bill with respect to the issuance of permits appear to be exceedingly cumbersome, and could lead to unnecessary litigation. From a procedural point of view, the Secretary could be required to hold three different hearings in a single case:

(a) A hearing under section 102 for the purpose of fact-finding and rule-making within the scope of his delegated authority;

(b) A hearing under section 103 in advance of the issuance of permits enabling the permittee to lawfully harvest marine mammals; and

(c) An additional hearing in the event of a modification, suspension or revocation of an outstanding permit.

We believe that hearings of the type mentioned in (a) above are appropriate and advisable at this time. However, we submit that hearings of the type referred to in (b) and (c) not be a mandatory requirement and that the Secretary be given discretion to institute such administrative procedures as he deems advisable under the circumstances to protect individual rights. Our revised bill therefore retains only the first type of hearing. See section 6(a) of the revised bill.

Although section 107(a) provides exceptions for aboriginal taking of marine mammals, it contains a requirement that such takings must be non-commercial thus eliminating a cottage industry based on ivory carving and fur sewing which plays a vital economic role in the lives of those people. This is a fragile economy at best and should not be discouraged. Although the Natives of the Bering Sea and Arctic Ocean coasts, whose sole source of income derives from the marginal seas adjacent to their historic homes, could certainly qualify for permits under the provisions of section 102, the hearing procedures required in that section would militate against effective participation as a practical matter for a people with only limited contact with civilization or, for that matter, with the English language itself. We believe that existing State game management programs when supplemented in federally controlled areas by appropriate regulations (which can only be issued after sufficient study) would be the most satisfactory soluton. Accordingly, our revised bill places no express limitations on Natives, as opposed to other persons, and section 6(b) directs the Secretary, in issuing regulations, to take account of the traditional activities of Natives.

Section 109 poses much the same jurisdictional problem which has already been discussed with respect to section 3(5)(A). It would be much more appropriate to authorize the Secretary to "seek" cooperative arrangements with the States and our revised bill so provides in section 11.

Section 110 poses serious problems. If the Secretary were to follow the procedures outlined in this section, he would almost certainly abrogate the existing fur seal convention. This in turn would probably result in the resumption of high seas sealing for northern fur seals by several other countries thus reverting back to the unselective and destructive method of sealing which was utilized prior to the 1911 convention. Our revised bill provides in section 6(a) that the Secretary must obtain the concurrence of the Secretary of State in issuing any proposed regulations and further directs the Secretary of State, in section 12, to undertake the necessary steps to enter into new international arrangements and revise existing ones to conform with the purposes of the Act.

The Department supports the concept of a citizen-commission. However, such a commission should be of limited duration with a provision for statutory extension. A permanent commission could result in duplication of effort and might unnecessarily compete for management and research money. We submit that the purpose of a commission is to fill the short-term goal of reviewing existing policies and practices. In addition, the Department does not believe that the President should be limited in his selection of commission members, either through the nomination process, or as a result of limiting criteria in the subject legislation. The Department would suggest that the commission be enlarged and that the qualifications for membership be deleted so that the commission could be more broadly representative and section 9 of our revised bill so provides.

In summary, for the foregoing reasons we would favor the enactment of H.R. 10420 in the revised form enclosed.

We have been advised by the Office of Management and Budget that there would be no objection to the submission of our report to the Congress from the standpoint of the Administration's program.

Sincerely,

Karl E. Bakke,
Acting General Counsel.

Department of Commerce

PROPOSED AMENDMENTS OF H.R. 10420

Strike all that follows the enacting clause and insert the following:

Section 2

(a) The Congress finds that—

(1) Marine mammals have proven themselves to be resources of international significance, recreational, esthetic and economic;

(2) While substantial information has been obtained concerning certain species of marine mammals, there is a requirement for additional knowledge with respect to the population dynamics of marine mammals and the factors which bear upon their ability to reproduce themselves successfully;

(3) Negotiations should be undertaken, as appropriate, to further encourage the development of international arrangements for research concerning management and conservation of marine mammals.

(b) The Congress declares that—

(1) It is the public policy of the United States to provide for the conservation and management of marine mammals in order to achieve an optimum ecological, recreational, esthetic and continuing economic benefit, and to assure that no species of marine mammals become threatened with extinc-

tion, and to take measures to restore the populations of marine mammals which may be substantially depleted or threatened with extinction.

(2) It is the sense of Congress that there be exercised by the Federal Government such regulatory authority as may be found to be necessary to advance the policy expressed herein. It is further the sense of Congress that such regulatory authority be exercised consonant with Federal concern for the livelihood and well-being of Natives, recreational and economic factors, the authority and responsibility of the several States for the conservation and management of marine mammals, and for implementation of the Convention on Fishing and Conservation of the Living Resources of the High Seas.

Section 3

For the purposes of this Act:

(a) "Marine mammal" shall mean any mammal which is morphologically adapted to the marine environment, including members of the orders *Pinnipedia* and *Cetacea*, sea otters, and manatees and any mammal which primarily inhabits the marine environment such as the polar bear, or any part, products, or offspring thereof, or the dead body or parts thereof.

(b) "Person" means any individual, partnership, corporation, joint venture, joint stock company, unincorporated association, or other organization subject to the jurisdiction of the United States.

(c) "High seas" means the waters seaward of the territorial sea of the United States.

(d) The term "taking" shall mean wounding, capturing or killing or hunting or pursuing with an intent to wound, capture or kill.

(e) "Natives" shall mean any Indians, Aleuts, Eskimos or other aborigines traditionally deriving their subsistence or livelihood, in whole or in part, by taking marine mammals.

(f) "Secretary" shall mean the Secretary of Commerce or the Secretary of the Interior as appropriate in the context and as related to their functions with respect to the marine mammals over which they exercise regulatory authority as provided in section 4 hereof.

Section 4

(a) The Secretary of Commerce shall exercise the regulatory and other authority granted by this Act over all cetaceans, seals, and sea lions.

(b) The Secretary of the Interior shall exercise the regulatory and other authority granted by this Act over all other marine mammals.

(c) The authority granted in this Act shall be in addition to other authorities relating to marine mammals exercised by the Secretaries, and, in the exercise of such other authorities for the conservation and management of marine mammals, the Secretaries of Commerce and Interior shall take into account the policies expressed herein.

Section 5

(a) It shall be unlawful for any person, vessel, airplane or other conveyance to take any marine mammal on the high seas in violation of regulations issued by the Secretary pursuant to this Act.

(b) It shall be unlawful for any person, in violation of regulations issued by the Secretary pursuant to this Act, knowingly (i) to possess, transport, sell, offer for sale or process in the United States or (ii) to deliver, carry, import or receive into the United States any marine mammal taken on the high seas.

(c) It shall be unlawful for any person, in violation of regulations issued by the Secretary pursuant to this Act, knowingly (i) to possess, transport, sell, offer for sale or process in the United States or (ii) to deliver, carry, import or receive into the United States any living marine resource (or any portion or product thereof) if in the taking of such resource any marine mammal is taken on the high seas.

(d) No person shall fail to keep such records or to make such reports as may be required pursuant to regulations issued under this Act.

(e) No person shall (i) refuse to allow a duly authorized enforcement officer on board and inspect a vessel, airplane, or conveyance subject to the jurisdiction of the United States in order to enforce this Act, or (ii) in any other way interfere wtih enforcement of this Act.

Section 6

(a) As soon as reasonably practicable following the enactment of this Act, the Secretary, with the concurrence of the Secretary of State and after notice and opportunity for public hearing, shall issue such regulations as he deems necessary and appropriate to carry out the purposes of this Act. Such regulations may include, without limitation, (i) provisions for the issuance of general and particular licenses or permits for the conduct of activities described in section 5 of this Act; (ii) such limitations on the taking of any species of marine mammal as the Secretary deems necessary for the conservation or management of said species, including the taking of marine mammals incidental to commercial fishing operations; and (iii) provisions for controlling the use of vessels, airplane, and other conveyances in connection with the taking of marine mammals. In issuing such regulations the Secretary may, in addition to such other procedures as may be specified by law, consult and cooperate with the interested States.

(b) In issuing regulations under subsection (a) hereof, the Secretary shall take into account (1) the findings and purposes expressed in section 2 of this Act; (ii) whether or not affected species of marine mammals are threatened with extinction, or substantial depletion by natural or man-made causes; (iii) whether or not affected species of marine mammals can be managed on a sustained-yield basis; (iv) the results of studies, research and development undertaken pursuant to this Act: (v) the need for taking marine mammals for medical, scientific, and education purposes: (vi) traditional activities of Natives; (vii) economic factors; (viii) whether or not regulation would be effective because of the activities of persons not subject to the jurisdiction of the United States; (ix) recreation factors; and (x) such other factors as may be relevant to the conservation and management of marine mammals.

Section 7

(a) Any person who commits a violation specified in section 5 hereof (other than violations referred to in section 7(b) below) shall be assessed a civil penalty of not more than $2500 by the District Court of the United States for any district in which such person is found, resides or transactions business, enforcement of such penalty to be instituted by the Attorney General at the request of the Secretary.

(b) Any person who knowingly commits a violation specified in section 5(a), and any person who commits a violation specified in section 5(b) or (c), shall be guilty of a misdemeanor and shall be subject to a fine of up to $10,000.

(c) Any vessel, airplane or other conveyance subject to the jurisdiction of the United States that is employed in connection with a violation referred to in section 7(b) hereof including its tackle, apparel, furniture, appurtenances, cargo, and stores, shall be subject to forfeiture and all marine mammals taken or retained in violation of regulations issued pursuant to this Act and all living marine resources (or portion or product thereof) possessed, transported, sold, offered for sale, processed, delivered, carried, imported or received in violation of regulations issued pursuant to this Act or, in either case, the monetary value thereof shall be forfeited.

(d) All provisions of law relating to the seizure, summary, and judicial forfeiture, and condemnation of a vessel, airplane or other conveyance including its tackle, apparel, furniture, appurtenances, cargo, and stores, for violation of the customs laws, the disposition of such vessel, airplane or other conveyance including its tackle, apparel, furniture, appuretenances, cargo, and stores, or the proceeds from the sale thereof, and remission of mitigation of such forfeitures shall apply to seizures and forfeitures incurred, or alleged to have been incurred, under the provisions of this Act, insofar as such provisions of law are applicable and not inconsistent with the provisions of this Act.

(e) Each violation of any regulations issued pursuant to this Act shall constitute a separate offense.

Section 8

(a) This Act shall be enforced by the Secretaries of Commerce, Interior, Treasury, and the Department in which the Coast Guard is operating. The Secretaries may utilize, by agreement, the personnel, services, and facilities of any other Federal agency for purposes of enforcing this Act.

(b) The Secretaries may also designate officers and employees of any State or of any possession of the United States to enforce the provisions of this Act.

When so designated, such officers and employees are authorized to function as Federal law enforcement agents for these purposes, but they shall not be held and considered as employees of the United States for the purposes of any laws administered by the Civil Service Commission.

(c) The judges of the United States district courts and the United States commissioners may, within their respective jurisdictions, upon proper oath or affirmation, showing probable cause, issue such warrants or other process as may be required for enforcement of this Act and any regulations issued thereunder.

(d) Any person authorized to enforce this Act may execute any warrant or process issued by any officer or court of competent jurisdiction for the enforcement of this Act.

(e) Such person so authorized may—

(1) with or without warrant or other process, arrest any person committing in his presence or view a violation of this Act or the regulations issued thereunder;

(2) with a warrant or other process, or without a warrant or other process if he has reasonable cause to believe that a vessel, airplane or other conveyance subject to the jurisdiction of the United States or any person on board is in violation of any regulation issued pursuant to this Act, search such vessel, airplane or other conveyance and arrest such person; any person arrested pursuant to this provision shall be immediately escorted to the nearest place at which sits a District Court of the United States for arraignment;

(3) seize, whenever and wherever found, all marine mammals taken or retained in violation of any regulation issued pursuant to this Act and shall dispose of them in accordance with regulations prescribed by the Secretary.

(f) Any Customs Officer may refuse entry or require the exportation of any marine mammal whose entry into the United States is prohibited by regulations issued pursuant to this Act. Any person may appeal such refusal of entry or order of exportation to the Supervisory Customs Officer for the Customs District in question.

Section 9

(a) There is hereby established a Marine Mammals Commission (hereinafter referred to as the Commission.) The Commission shall be composed of seven members who shall be appointed by, and serve at the pleasure of, the President. The President shall designate a Chairman of the Commission from among its members.

(b) The Commission shall meet in Washington, D.C., at least once every year, and shall meet at other times at the call of the Chairman. Thirty days after the third anniversary date of the establishment of the Commission it shall cease to exist unless otherwise extended by Law.

(c) Subject to applicable laws and regulations, the Commission shall have access to all studies and data compiled by Federal agencies regarding marine mammals.

(d) Members of the Commission, other than government employees, may each be compensated at the rate of $100 for each day such member is engaged in the actual performance of duties vested in the Commission. Each member shall be reimbursed for travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5, United States Code, for persons in Government service employed intermittently.

(e) The Commission may establish such staff, hire such consultants and contract for such studies as it deems necesary to carry out it functions.

(f) The Commission shall have an Executive Director who shall be appointed by the Chairman with the approval of the Commission and shall be paid at a rate not in excess of the maximum rate for GS–18 of the General Schedule under section 5332 of title 5, United States Code. The Executive Director shall have such duties as the Chairman may assign.

Section 10

(a) The Commission shall:

(1) Undertake a comprehensive review and study of the activities of the United States pursuant to the Interim Convention on Conservation of North Pacific Fur Seals and the Fur Seal Act of 1966, and the International Convention for the Regulation of Whaling and the Whaling Convention Act of 1949, and report its findings and recommendations to the Secretaries of Commerce, Interior and State no later than June 1, 1972.

(2) Conduct a review of the condition of the species of marine mammals, and of humane methods for their management.

(3) Review and make recommendations regarding studies of marine mammals for the purpose of determining the need for conservation and management of such marine mammals.

(4) Recommend annually, or more frequently as appropriate, to the appropriate Federal agencies such additional measures, legislative, regulatory, or programmatic, as it deems necessary to further the policies of this Act. Thereafter such recommendation shall be made public.

(5) Consult with Natives with regard to formulation of Commission recommendations which affect them.

(6) Recommend to the Secretary of State appropriate policies regarding existing international arrangements for the conservation and management of marine mammals, and suggest appropriate international arrangements for the conservation and management of marine mammals.

(7) Recommend to the Secretary of the Interior revisions of the Endangered Species List authorized by the Endangered Species Conservation Act of 1969 pertaining to marine mammals.

(b) The Commission shall submit annually a report to the President, for transmittal to Congress, summarizing its activities, findings and recommendations.

(c) Copies of recommendations made pursuant to paragraphs 1, 4, 6, and 7 of subsection (a) of this section shall be furnished by the Commission to all appropriate Federal agencies.

Section 11

The Secretary is authorized to seek cooperative arrangements with the appropriate officials of the several States for the conservation and management of marine mammals.

Section 12

The Secretary of State, in consultation with the Secretaries, shall undertake steps when appropriate to revise existing international arrangements, or to establish new international arrangements for the conservation and management of marine mammals consonant with the purposes of this Act.

Section 13

The Secretary is hereby authorized to institute such programs of research and development as he may deem necessary or appropriate to carry out the purposes of this Act.

Section 14

The invalidity of any portion of this Act shall not affect any other portion.

Section 15

There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

U.S. CIVIL SERVICE COMMISSION,
Washington, D.C., September 16, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives.

DEAR MR. CHAIRMAN: This is in further response to your request for the views of the Civil Service Commission on H.R. 10420, a bill "To protect marine mammals; to establish a Marine Mammal Commission; and for other purposes."

The comments in this report are limited to recommendations for improving and clarifying certain personnel provisions in the bill.

Section 201 of H. R. 10420 establishes a Marine Mammal Commission which will be composed of three members appointed by the President. Each member will be paid $100 a day when he is engaged in the actual performance of duties of that Commission and will be reimbursed for travel expenses under the statutory provisions generally applicable to intermittent employees. An Executive Director will be appointed by the Chairman of the new Commission and paid at a rate not exceeding the rate for GS-18 (currently limited to $36,000).

The Civil Service Commission would not oppose the $100 a day rate for members of the proposed Commission. However, it should be noted that in recent legislation the daily rate or maximum rate for such intermittent services is generally expressed as the daily equivalent of the rate for GS-18 ($138.48). Use of a General Schedule rate, rather than a fixed dollar amount, provides greater flexibility by having the pay for the members adjust automatically when salaries for most regular full-time employees are changed.

With reference to the compensation for the Executive Director of the Marine Mammal Commission, there is no apparent justification for not applying the job evaluation and pay provisions of the General Schedule system which is generally applicable to Federal employees. We therefore recommend that the first sentence in section 201(e) be amended by deleting the part relating to compensation. This deletion will have the effect of making the General Schedule pay system applicable to the position of the Executive Director.

Section 203 of H. R. 10420 requires the Marine Mammal Commission to establish a Committee on Scientific Advisors on Marine Mammals which will consist of nine specially qualified scientists. There is no indication in the bill as to whether these scientists will serve on a full-time or on a part-time basis. If they are full-time employees, their salaries will be determined under the General Schedule job evaluation and pay provisions. If they are to serve on a part-time basis, the bill should so state and should include language about whether they are to be compensated and if so, what the per diem rate or maximum limitation is to be.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

By direction of the Commission:

Sincerely yours,

ROBERT E. HAMPTON, *Chairman.*

GENERAL SERVICES ADMINISTRATION,
Washington, D.C., September 17, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Your letters of August 10 and 17, 1971, requested the views of the General Services Administration on H. R. 6554, H. R. 6558, H. R. 7463, H.R. 10420, and H.R. 8183 relating to the protection of ocean mammals.

GSA defers to the agencies more directly concerned as to the merits of the proposed bills, but does offer the following technical comments on H. R. 10420.

1. It is not clear whether appointments to the Commission (Sec. 201 (e) and Sec. 203) are to be made in accordance with or without regard to Civil Service rules and regulations and the Classification Act.

2. If the Commission is to employ experts and consultants, the following language should be added to Sec. 206:

"(5) May procure services of experts or consultants or an organization thereof as authorized under Section 3109, Title 5, U.S.C., but at rates for individuals not to exceed $——— per diem."

The Office of Management and Budget has advised that, from the standpoint of the Administration's program, there is no objection to the submission of this report to your Committee.

Sincerely,

HAROLD S. TAMMER, Jr.,
Assistant Administrator.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., September 9, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: We respond to your request for comment on H.R. 690, a bill "To require the Secretary of the Interior to make a comprehensive study of the polar bear and walrus for the puropse of developing adequate conservation measures", and H.R. 6804, a similar bill "to require the Secretary of the Interior to make a comprehensive study of the polar bear, seal, walrus, and cetaceans for the purpose of developing adequate conservation measures".

We recommend the enactment of H.R. 690, if amended as suggested herein.

H.R. 690 would direct the Secretary of the Interior, in cooperation with the States, to conduct a comprehensive four-year study of the polar bear and the walrus for the purpose of developing measures adequate to assure conservation of these species on the high seas. A final report of the study, together with recommendations for further action, would be made through the President to the Congress no later than January 1, 1976. The factors to be studied would include distribution, migration, and current populations, as well as the effects of hunting, disease and food shortages. To fund these studies, there would be authorized an annual appropriation of $100,000 for fiscal years 1972–1975.

H.R. 6804 would provide similar authority for studies of seals and cetaceans, in addition to the polar bear and walrus, and require that such studies consider the need for "humane treatment in all cases".

As the Committee is aware, Reorganization Plan No. 4 of 1970 (84 Stat. 2090) transferred to the Department of Commerce "all functions vested by law in the Bureau of Commercial Fisheries . . . together with all functions vested by law in the Secretary of the Interior which are administered through that Bureau or are primarily related to the Bureau". Thus, our Bureau of Sport Fisheries and Wildlife has retained primary Federal responsibility for the polar bear, walrus and sea otter. For reasons discussed in our report on H.R. 10420, including the consolidation of program authorities anticipated by this Administration's proposal for establishment of a Department of Natural Resources, we recommend against assignment to this Department of responsibility for those species of marine mammals, other than polar bear and walrus, identified by H.R. 6804.

Pursuant to the general authority for wildlife research contained in the Fish and Wildlife Act of 1956 (70 Stat. 1119; 16 U.S.C. 742a *et seq.*), this Department, in cooperation with interested States and other Federal agencies, has already undertaken studies of the polar bear, walrus, and sea otter not unlike those contemplated by H.R. 690. Within limits prescribed by the availability of funds, personnel of the Bureau of Sport Fisheries and Wildlife have sought to obtain information about the polar bear, walrus and sea otter that could help to assure their preservation within an increasingly hostile environment.

Cooperative wildlife research units in Oregon, Alaska and Arizona have initiated studies of the sea otter, which include an evaluation of attempts to introduce sea otters along the Oregon coast, the ecology and behavior of sea otters in Prince William Sound, Alaska, and an investigation of the effects upon sea otters of natural and imposed stresses at the nuclear test site, Amchitka, Alaska. Current research on the walrus is confined to surveys in the Bering Sea, where aerial reconnaisance has revealed certain patterns of distribution, and that ice conditions influence abundance. The growing scarcity of the ribbon seal and previous experience with walrus depletion indicate that additional research will be needed as the basis for conservation in international waters.

In recognition of the need for reliable information upon which to base a management program, the Department published in 1959 a preliminary study concerning the status of the polar bear. In 1965, the Bureau of Sport Fisheries and Wildlife convened the first international meeting devoted to conservation of this great white Arctic bear. Current studies by a Bureau biologist, working in conjunction with a colleague from the Alaska Department of Fish and Game and wildlife biologists representing Canada, Denmark, Norway and the Soviet Union, have resulted in an accurate assessment of the Arctic harvest. A reliable estimate of the regional population remains difficult to obtain, however, due to sparse distribution of the individual animals, shortness of the season for field work, and the frequency of violent weather.

Enactment of H.R. 690 would provide specific authority to extend the scope of those studies now being conducted and a realistic deadline for their completion. The knowledge gained prior to submission of a final report in 1976 should enable this Department, and the Congress, to implement a sound program for the conservation and management of these species. Because it is difficult to estimate in advance the annual cost of such studies, and because the extent of research required may not be known until completion of preliminary studies, we suggest deletion of the limit on annual appropriations contained in section 2 of H.R. 690.

We recommend, further, that H.R. 690 be amended to vest in the Secretary authority to regulate the taking by American nationals of polar bear and walrus on the high seas. Such authority is already available for the protection of sea otters under title III of the Fur Seal Act of 1966 (80 Stat. 1096; 16 U.S.C. 1171) and would, we believe, contribute significantly to the conservation of polar bears found beyond the territorial sea of the United States. Our proposed amendment would make it unlawful, except as provided by regulations issued by the Secretary, for any person subject to the jurisdiction of the United States to take polar bears or walrus on the high seas, or to possess, transport, sell or purchase polar bears or walrus, or parts thereof, taken on the high seas. We recommend the addition of a new section 3, as follows:

"Sec. 3. Section 301 of the Fur Seal Act of 1966 (80 Stat. 1096; 16 U.S.C. 1171) is amended by inserting the words ', polar bears, or walrus' or the words ', polar bear, or walrus', as appropriate, following the words 'sea otters' and "sea otter' wherever they appear."

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

Harrison Loesch,
Assistant Secretary of the Interior.

U.S. Department of the Interior,
Office of the Secretary,
Washington, D.C., September 8, 1971.

Hon. Edward A. Garmatz,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

Dear Mr. Chairman: This responds to your requests for comment on H. Con. Res. 77, expressing the sense of Congress that the Secretary of the Interior prescribe and implement regulations for the harvesting of Northern fur seals; H.R. 4370, a bill "To amend the Fur Seal Act of 1966 by prohibiting the clubbing of seals after July 1, 1972, the taking of seal pups, and the taking of female seals on the Pribilof Islands or on any other land and water under the jurisdiction of the United States"; and H.R. 7463, a bill "to protect seals from being pursued, harassed, or killed; and for other purposes".

As each of these bills pertains to program responsibilities now vested in the Department of Commerce, we defer to its judgment concerning the advisability of enactment.

H. Con. Res. 77, H.R. 4370, and H.R. 7463 all purport to regulate further the taking of North Pacific fur seals under a program administered by the Federal Government pursuant to the Fur Seal Act of 1966 (16 U.S.C. 1151, *et seq.*). H. Con. Res. 77 would urge the implementation of regulations "which insure that the seals are quickly and painlessly killed before skinning". H.R. 4370 would amend sections 104, 109, 404 and 405 of the Fur Seal Act of 1966 to prohibit the killing of seals by clubbing after July 1, 1972, the taking of the skin of any seal under one year of age, and the taking of the skin of any female seal. It would further direct the Secretary of Commerce to initiate research on alternative means of killing seals, and to adopt regulations which reflect the results of such research. Subject to exceptions for research, public display, native uses and continued implementation of the Interim Convention on the Conservation of North Pacific Fur Seals, H.R. 7463 would prohibit the taking, importation, sale and possession of seals or parts thereof. It would express the sense of Congress that the Convention not be extended beyond the expiration date of 1976, and direct the Secretary of State to initiate negotiations for obtaining a substitute agreement that would ban all killing of North Pacific fur seals. H.R. 7463 would also provide for administration of the Pribilof Islands by this Department as a National Seal Rockery Preserve and Bird Sanctuary, and for the establishment of a Pribilof Islands Commission.

Each of these bills adopts the premise that management of the Pribilof fur seal herd pursuant to the Convention and the Fur Seal Act of 1966 is inhumane and/or has caused the depletion of this resource. The Department of Commerce, to which this program responsibility was transferred by Reorganization Plan No. 4 of 1970, can best assess that premise in light of recent data. During our administration of the program, exhaustive research failed to support the conclusions of those who seek to end the fur seal harvest. To the contrary, available evidence indicated that international cooperation had resulted in a larger, more healthy herd. Commenting to the last Congress on legislation identical to H.R. 4370, we noted that :

> discontinuance (of the fur seal harvest) would have serious biological and economic effects. The Aleuts living in two communities on the Pribilofs would be deprived of employment. The State of Alaska would no longer receive its 70 percent share of the proceeds from sales of Alaska sealskins. The limited support capacity of the Pribilofs would be overtaxed causing a substantial loss of pups due to parasitism, injury, and malnutrition. Japan and Canada would be denied a share of the land harvest as promised by agreement and might well resort to the wasteful killing of fur seals in the open sea.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

W. T. PECORA,
Under Secretary of the Interior.

U. S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., September 9, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN : This is in response to your request for our comments on H.R. 6554, H.R. 6558, and H.R. 8183, similar bills to be cited as the "Ocean Mammal Protection Act of 1971".

Consistent with a Congressional declaration that ocean mammals, including seals, whales, walrus, manatee, sea otters, sea lions, polar bears, porpoise and dolphins, are being "ruthlessly pursued, harassed, or killed" and may therefore become rare or extinct, these bills contain provisions that would greatly enlarge Federal responsibility for conservation of such animals, regardless of their status as endangered species.

Specifically, H.R. 6554 would (1) with certain limited exceptions, make unlawful the taking of ocean mammals on land or sea by vessels or persons subject to jurisdiction of the United States; (2) express the sense of Congress that the Interim Convention on the Conservation of North Pacific Fur Seals not be continued upon its termination in 1975; (3) provide that, pending termination of the Convention, the United States not harvest its quota of North Pacific Fur Seals, and that the quotas of Japan and Canada be honored either by in lieu payments or direct shipment of skins; (4) establish a Pribilof Islands National Seal Rookery Reserve and Bird Sanctuary to be administered by this Department; and (5) direct the appointment of a Pribilof Islands Commission to assist in the development of a substitute economy for the Pribilof Islands. In addition, H.R. 6554 would repeal relevant, but inconsistent, provisions of the Fur Seal Act of 1966 (16 U.S.C. 1171 *et seq.*).

We defer to the Departments of State and Commerce concerning effects of this legislation upon efforts to regulate by international agreement the taking of pelagic mammals. As the Committee is aware, primary responsibility for implementation of the Convention and for administration of the Pribilof Islands was transferred to the Department of Commerce by Reorganization Plan No. 4 of 1970. We offer comment, however, based on experience with implementation of the Convention and our interest in effective management of wildlife resources.

It is clearly a basic premise of H.R. 6554 and related bills that an absolute unilateral prohibition against the killing of all ocean mammals will assure their protection, and that such cessation of the harvest is a sound objective. We do not agree. To meet a legitimate public concern for preservation and protection of endangered species, the Congress has enacted legislation that authorizes the Secretary of the Interior to undertake a program for conservation of animals so classified. Further, the Secretary has exercised regulatory authority to prevent the importation of species found to be threatened with extinction. We refer, of course, to the Act of October 15, 1966 (80 Stat. 926), as amended by the Endangered Species Conservation Act of 1969 (16 U.S.C. 668aa *et seq.*), for which your Committee was largely responsible.

The list of species threatened with worldwide extinction now includes several species of whale, the Dugong (sea cow), and Florida Manatee. Other species named by H.R. 6554 are neither threatened with extinction, nor subject to ruthless harassment, as the bill would find. Some of the subject species, notably fur seals and whales, are protected to some degree by international convention. Others are protected by State regulation. We recognize that some species not now threatened with extinction will become endangered in the absence of effective international regulation.

H.R. 6554 is unsound in other respects. With some exceptions, individual States, and not the Federal government assert jurisdiction for management of resident birds and mammals, including seals, the manatee, sea otter, sea lion, walrus, and polar bear. Enforcement under section 206(a), diffused among five Departments, would be unwieldy, if not entirely unworkable. The substitute economy envisaged by section 303, for the Pribilof Islands would fail, we believe, because the season is too short, the climate too severe, and transportation too expensive to attract tourists in numbers sufficient to support the native population. If the fur seal industry were terminated, as H.R. 6554 proposes, it would be necessary to relocate all or most of the Aleut inhabitants.

A sound approach to management of ocean mammals requires further research and strengthened international regulation of those practices which threaten species not already classified as "endangered". This approach would serve to reaffirm our concern for the worldwide protection of wildlife. We think it important to strengthen, rather than abolish, the existing international institutions which make such protection possible.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

HARRISON LOESCH,
Assistant Secretary of the Interior.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., September 8, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: This responds to your request for comment on H.R. 10420, a bill "To protect marine mammals; to establish a Marine Mammal Commission; and for other purposes".

H.R. 10420, which would be cited as the "Marine Mammal Protection Act of 1971", contains a declaration of congressional purpose relative to the conservation of marine mammals, and would direct that the Secretary of the Interior undertake a comprehensive program for the regulation of taking all such animals on the high seas, within the territorial sea of the United States, and within the contiguous fisheries zone. Title I provides more specifically for the establishment of limitations on the numbers of each species which may be taken consonant with a need for its preservation, for the issuance of permits as a prerequisite of any taking, except by Indians, Aleuts, or Eskimos under certain circumstances, and for cooperative arrangements between the Secretary and the States that "prescribe the circumstances under which marine mammals which pass through or reside within the territorial waters of any State may be taken". The Secretary would also be directed to review management of the fur seal harvest on the Pribilof Islands and to provide an alternate means for satisfaction of obligations under the International Convention for the Conservation of North Pacific Fur Seals, if he determines that the Pribilof harvest should be curtailed or terminated.

Title II would establish a Marine Mammal Commission composed of three members appointed by the President, and would, in turn, require that the Commission appoint a nine-member Committee of Scientific Advisors on Marine Mammals. In consultation with its advisory committee, the Commission would conduct a general survey of authorities and practices pertaining to marine mammals, advise the Secretary of such matters, and furnish to the Congress an annual report of its activities. There would be authorized to be appropriated such sums as may be necessary to carry out the purposes of Title I, and such additional sums, not to exceed $1 million annually for two years, as may be needed to finance activities of the Commission and its advisory committee under Title II.

This Department recognizes the need expressed by H.R. 10420 for a coordinated approach to the protection, conservation and management of marine mammals, and agrees that additional regulatory authority would, if properly conceived, contribute to the preservation of those species subject to a variety of natural and man-made incursions. As the Committee is aware, we now have Federal program responsibility under the Fish and Wildlife Act of 1956 for only the polar bear, walrus and sea otter of those species identified by H.R. 10420. Reorganization Plan No. 4 of 1970 (84 Stat. 2090) transferred to the Department of Commerce those authorities formerly exercised by this Department through the Bureau of Commercial Fisheries. These include management activities and research related to fur seals, whales and sea lions.

Enactment of this Administration's proposal for a Department of Natural Resources, now pending in the House of Representatives as H.R. 6959, would effect a consolidation of existing authorities relative to marine mammals. Thus, we recommend against the partial realignment of program responsibilities contemplated by H.R. 10420, and urge prompt action to establish the Department of Natural Resources. With respect to those provisions of H.R. 10420 which most directly affect its conduct of programs assigned by Reorganization Plan No. 4 of 1970, we defer to the Department of Commerce. That Department is best able to discuss, for instance, the impact of H.R. 10420 on its management of the Pribilof fur seal harvest pursuant to the Fur Seal Act of 1966. We have addressed the need for research and additional regulatory authority to strengthen our polar bear, walrus and sea otter programs in a separate report on H.R. 690.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

W. T. Pecora,
Under Secretary of the Interior.

Office of the Deputy Attorney General,
Washington, D.C., September 17, 1971.

Hon. Edward A. Garmatz,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

Dear Mr. Chairman: This is in response to your request for the views of the Department of Justice on H.R. 4370, a bill "To amend the Fur Seal Act of 1966 by prohibiting the clubbing of seals after July 1. 1972, the taking of seal pups, and the taking of female seals on the Pribilof Islands or on any other land and water under the jurisdiction of the United States."

The bill would add new provisions to the Fur Seal Act of 1966 (16 U.S.C. 1151–1187) to prohibit the killing of seals by clubbing after July 1, 1972, and the taking of the skin of any seal under one year of age or of any female seal. The Secretary of the Interior would be directed to initiate or contract for research on alternative means of killing seals and to adopt regulations prescribing more painless techniques.

Transportation in interstate commerce, or sale after such transportation, of seals or skins of seals killed or taken in violation of the added prohibitions would be punishable by a fine of not more than $2,000, or imprisonment for not more than one year, or both.

Whether this legislation should be enacted involves questions as to which the Department of Justice defers to the Department of Commerce, to which administration of the Pribilof Islands was transferred by Reorganization Plan No. 4 of 1970.

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD G. KLEINDIENST,
Deputy Attorney General.

OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, D.C., September 17, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your reqeust for the views of the Department of Justice on H.R. 6554, a bill "To protect ocean mammals from being pursued, harassed, or killed; and for other purposes."

Title I of the bill expresses a finding by the Congress that ocean mammals are being pursued, harassed, or killed both at sea and on land by hunters of many nations, and that many will become rare if not extinct unless steps are taken to stop their slaughter. The Congress would declare it to be the public policy of the United States to protect all ocean mammals, and to negotiate with foreign governments and through interested international organizations to obtain a worldwide ban on their slaughter.

Title II contains broad prohibitions with respect to the taking, transportation, or possession, by any person or vessel subject to the jurisdiction of the United States, of any ocean mammals or parts of ocean mammals (defined as all seal, whale, walrus, manatee or sea cow, sea otter, sea lion, polar bear, porpoise, and dolphin). Exceptions would be made only for Indians, Aleuts, and Eskimos dwelling on the coasts of the North Pacific or Arctic oceans, who would be permitted to take mammals other than polar bears for their own use in accordance with traditions, and in accordance with regulations of the Secretary of the Interior for municipal and other non-profit zoos and for medical and scientific research. Vessels subject to the jurisdiction of the United States employed in a violation would be subject to forfeiture. Provision is made for issuance of regulations by the Secretaries of State, Treasury, Interior, Commerce and Transportation to carry out the purposes of the title, for enforcement of the title and regulations thereunder, and for a fine of not more than $5,000 or imprisonment of not more than one year, or both, for the first offense, and of not more than $10,000 or imprisonment for not less than one nor more than three years, or both, for subsequent offenses.

Title III would provide for notification by the Secretary of State to the other parties to the North Pacific Fur Seal Convention that the United States does not intend to extend its life beyond its current termination date in 1975, and for negotiation by the Secretary of international agreements to ban all killing of North Pacific Fur Seals. Interim arrangements are made for honoring treaty provisions. The Pribilof Islands would be designated a National Seal Rookery Preserve and Bird Sanctuary.

The bill would repeal (section 208), Title III ("Protection of Sea Otters on the High Seas") of Public Law 89–702 and (section 405), such provisions of the Fur Seal Act of 1966 as are inconsistent with it.

Provisions of the present bill are largely patterned after the legislation which is to be repealed. However, title III of Public Law 89–702 (16 U.S.C. 1171 *et seq.*), as its title implies, is directed specifically to the taking of sea otters on the high seas, and the Fur Seal Act of 1966 (16 U.S.C. 1151 *et seq.*) is directed largely to carrying out the obligations of the United States under the North Pacific Fur Seal Convention. We perceive the likelihood of some problems in determining which provisions of the latter statute would be affected by the repealer language of the present bill, but defer to the Departments of State, Commerce and the Interior as to whether a different approach should be taken on this matter.

The Department of Justice perceives no constitutional or other legal objections to enactment of this bill. However, whether the bill should be enacted involves policy considerations as to which the Department defers to the Departments of the Interior, Commerce and State.

We do wish to point out that the sections in the bill after 303 are designated 404 and 405 instead of 304 and 305, that on page 5, line 23, the word "relates" should be changed to "relate", and that on page 6, line 7, the word "Commissioners" should be changed to "Magistrates". Also, two successive sections have been designated as "Sec. 208".

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD G. KLEINDIENST,
Deputy Attorney General.

OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, D.C., September 17, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Justice on H.R. 6558, a bill "to protect ocean mammals from being pursued, harassed, or killed; and for other purposes."

Title I of the bill expresses a finding by the Congress that ocean mammals are being pursued, harassed, or killed both at sea and on land by hunters of many nations, and that many will become rare if not extinct unless steps are taken to stop their slaughter. The Congress would declare it to be the public policy of the United States to protect all ocean mammals, and to negotiate with foreign governments and through interested international organizations to obtain a world-wide ban on their slaughter.

Title II contains broad prohibitions with respect to the taking, transportation, or possession, by any person or vessel subject to the jurisdiction of the United States, of any ocean mammals or parts of ocean mammals (defined as all seal, whale, walrus, manatee or sea cow, sea otter, sea lion, polar bear, porpoise, and dolphin). Exceptions would be made only for Indians, Aleuts, and Eskimos dwelling on the coasts of the North Pacific or Arctic oceans who would be permitted to take mammals other than polar bears for their own use in accordance with traditions, and in accordance with regulations of the Secretary of the Interior for municipal and other non-profit zoos and for medical and scientific research. Vessels subject to the jurisdiction of the United States employed in a violation would be subject to forfeiture. Provision is made for issuance of regulations by the Secretaries of State, Treasury, Interior, Commerce, and Transportation to carry out the purposes of the title, for enforcement of the title and regulations thereunder, and for a fine of not more than $5,000 or imprisonment of not more than one year, or both, for the first offense, and of not more than $10,000 or imprisonment for not less than one nor more than three years, or both, for subsequent offenses.

Title III would provide for notification by the Secretary of State to the other parties to the North Pacific Fur Seal Convention that the United States does not intend to extend its life beyond its current termination dae in 1975, and for negotiation by the Secretary of international agreements to ban all killing of North Pacific Fur Seals. Interim arrangement are made for honoring treaty provisions. The Pribilof Islands would be designated a National Seal Rookery Preserve and Bird Sanctuary.

The bill would repeal (section 208), Title III ("Protection of Sea Otters on the High Seas") of Public Law 89–702 and (section 405), such provisions of the Fur Seal Act of 1966 as are inconsistent with it.

Provisions of the present bill are largely patterned after the legislation which is to be repealed. However, title III of Public Law 89–702 (16 U.S.C. 1171 *et seq.*), as its title implies, is directed specifically to the taking of sea otters on the high seas, and the Fur Seal Act of 1966 (16 U.S.C. 1151 *et seq.*) is directed largely to carrying out the obligations of the United States under the North Pacific Fur Seal Convention. We perceive the likelihood of some problems in determining which provisions of the latter statute would be affected by the repealer language of the present bill, but defer to the Departments of State, Commerce and the Interior as to whether a different approach should be taken in this matter.

The Department of Justice perceives no constitutional or other legal objections to enactment of this bill. However, whether the bill should be enacted involves policy considerations as to which the Department defers to the Departments of the Interior, Commerce and State.

We do wish to point out that the sections in the bill after 303 are designated 404 and 405 instead of 304 and 305, that on page 6, line 3, the word "relates" should be changed to "relate," and that on page 6, line 11, the word "Commissioners" should be changed to "Magistrates." Also, two successive sections have been designated as "Sec. 208."

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD G. KLEINDIENST,
Deputy Attorney General.

OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, D.C., September 17, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Justice on H.R. 7463, a bill "To protect seals from being pursued, harassed, or killed; and for other purposes."

This bill is patterned after H.R. 6554 but would protect only seals, while H.R. 6554 and the similar bill H.R. 8183 would extend protection to other types of sea mammals as well as seals. H.R. 10420, a bill also relating to sea mammals, provides for control, rather than elimination, of their taking. Reports on H.R. 6554, H.R. 8183, and H.R. 10420 have already been submitted by the Department.

Section 201 of H.R. 7463 does not define the terms "take", "taking", and "taken" to include "to collect", as does section 201 of H.R. 6554. Section 202 of H.R. 7463 prohibits certain acts of "persons" subject to the jurisdiction of the United States, while section 202 of H.R. 6554 prohibits acts of "persons or vessels". In both cases, the language of H.R. 6554 appears to be preferable.

Like H.R. 6554, the bill H.R. 7463 would provide in Title III for notification by the Secretary of State to the other parties to the North Pacific Fur Seal Convention that the United States does not intend to extend its life beyond its current termination date of 1975, and for negotiation by the Secretary of international agreements to ban all killing of North Pacific Fur Seals. Also, interim arrangements are made for honoring treaty provisions, and the Pribilof Islands would be designated a National Seal Rookery Preserve and Bird Sanctuary.

H.R. 7463 would provide for repeal of such provisions of the Fur Seal Act of 1966 (16 U.S.C. 1151, *et seq.*) as are inconsistent with the new legislation. It should be noted that this provision may create some problems in determining which provisions of the Act would be affected by the repealer language.

Whether the bill should be enacted involves considerations as to which the Department defers to the Departments of Commerce and State. However, we do wish to point out that the sections in the bill after 303 are designated 404 and 405 instead of 304 and 305, that on page 6, line 2, the word "relates should be changed to "relate", and that on page 6, line 10, the word "commissioners" should be changed to "magistrates".

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD G. KLEINDIENST, *Deputy Attorney General.*

OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, D.C., September 14, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Justice on H.R. 8183, a bill "To protect ocean mammals, and for other purposes."

The bill is similar to H.R. 6554, on which we are also submitting our views, differing mainly in some section designations and minor terminology.

Title I of the bill expresses a finding by the Congress that ocean mammals are being pursued, harassed, or killed both at sea and on land by hunters of many nations, and that many will become rare if not extinct unless steps are taken to stop their slaughter. The Congress would declare it to be the public policy of the United States to protect all ocean mammals, and to negotiate with foreign governments and through interested international organizations to obtain a worldwide ban on their slaughter.

Title II contains broad prohibitions with respect to the taking, transportation, or possession, by any person or vessel subject to the jurisdiction of the United States, of any ocean mammals or parts of ocean mammals (defined as all seal, whale, walrus, manatee or sea cow, sea otter, sea lion, polar bear, porpoise, and dolphin). Exceptions would be made only for Indians, Aleuts, and Eskimos dwelling on the coasts of the North Pacific or Artic oceans, who would be permitted to take mammals other than polar bears for their own use in accordance with traditions, and in accordance with regulations of the Secretary of the Interior for municipal and other non-profit zoos and for medical and scientific research. Vessels subject to the jurisdiction of the United States employed in a violation would be subject to forfeiture. Provision is made for issuance of regulations by the Secretaries of State, Treasury, Interior, Commerce, and Transportation to carry out the purposes of the title, for enforcement of the title and regulations thereunder, and for a fine of not more than $5,000 or imprisonment of not more than one year, or both, for their first offense, and of not more than $10,000 or imprisonment for not less than one nor more than three years, or both, for subsequent offenses.

Title III would provide for notification by the Secretary of State to the other parties to the North Pacific Fur Seal Convention that the United States does not intend to extend its life beyond 1976, and for negotiation by the Secretary of international agreements to ban all killing of North Pacific Fur Seals. Interim arrangements are made for honoring treaty provisions. The Pribilof Islands would be designated a National Seal Rookery Preserve and Bird Sanctuary.

The bill would repeal Title III ("Protection of Sea Otters on the High Seas") of Public Law 89–702 and such provisions of the Fur Seal Act of 1966 as are inconsistent with the new legislation.

Provisions of the present bill are largely patterned after the legislation which is to be repealed. However, Title III of Public Law 89–702 (16 U.S.C. 1171 *et seq.*), as its title implies, is directed specifically to the taking of sea otters on the high seas, and the Fur Seal Act of 1966 (16 U.S.C. 1151 *et seq.*) is directed largely to carrying out the obligations of the United States under the North Pacific Fur Seal Convention. We perceive the likelihood of some problems in determining which provisions of the latter statute would be affected by the repealer language of the present bill.

Whether the bill should be enacted involves policy considerations concerning which the Department defers to the agencies concerned. However, we do wish to point out that on page 5, line 24, the word "commissioners" should be changed to "magistrates".

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD G. KLEINDIENST,
Deputy Attorney General.

OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, D.C., October 1, 1971.

HON. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Justice on H.R. 10420, a bill "To protect marine mammals; to establish a Marine Mammal Commission; and for other purposes."

This bill would protect specified species of marine mammals by prohibiting their taking except as authorized under permit of the Secretary of the Interior. The prohibition would apply to all persons and vessels subject to the jurisdiction of the United States on the high seas and to anyone in waters under the jurisdiction of the United States or land appurtenant thereto. It would also establish a Marine Mammal Commission to review United States activity pursuant to existing laws and international agreements relating to marine mammals and make recommendations on additional measures for their protection.

As written, the provisions of H.R. 10420 would be administered by the Secretary of the Interior. Section 1 of Reorganization Plan Number 4 of 1970 transferred the functions of the Bureau of Commercial Fisheries to the Secretary of Commerce. The protection of fisheries resources, including certain mammals, generally falls within the domain of that Bureau's successor, the National Marine Fisheries Service. It is therefore recommended that Section 3(3) of H.R. 10420 (page 3, lines 4–5) be amended to reflect the present allocation of authority between the Secretary of Commerce and the Secretary of the Interior.

Section 103 of the bill would require notice and an opportunity for public hearings prior to the issuance of a permit to take mammals. This requirement might result in a significant administrative burden. Many Alaskans, for example, make items for the tourist trade from seal skin. Presumably they would not be exempted under Section 107(a) of the bill because of this commercial sale and the necessary permits, and potential hearings, could run into the thousands.

Section 102 of the bill would provide for notice and an opportunity for public hearing prior to the Secretary's determination of how many mammals of each species could be taken each year, when, and how they could be taken. This hearing would appear to provide a sufficient opportunity for persons to be heard and avoid the necessity of having a hearing on each permit.

Section 109 of the bill (page 13) would direct the Secretary to develop arrangements with the several States for the protection of marine mammals. It also would provide that mammals taken pursuant to such arrangements would be deemed to have been taken lawfully within the meaning of the bill. This policy appears to be desirable, since most marine mammals spend a majority of their time in state waters and have traditionally been managed by the States. However, the bill does not specify that the protections provided in its other sections should be applied to the state arrangements. Under the present wording the Secretary and state officials apparently would be free to set limits and seasons and issue permits without the public hearing that would be required if the Federal Government approached the problem alone. If this is the bill's intent it should be more clearly stated; if not, the language should be changed.

Section 110 of H.R. 10420 (pages 13–15) would require the Secretary to "undertake an immediate review of the current activities involved in the taking of fur seals in the Pribilof Islands for the purpose of determining whether such activities are consistent with the purposes and policy of this Act." If he decided that they were not, the bill would give Canada and Japan the option of taking, in lieu of the skins to which they would be entitled under the International Convention for the Conservation of North Pacific Fur Seals, either the average value of such skins, or 9,000 seal skins. The Convention entitles Japan and Canada 15% of the annual harvest of skins. The bill's inconsistency with that treaty obligation involves a foreign policy question as to which the Department of Justice defers to the State Department.

Section 201(a) (page 15, lines 20–22) would establish a Marine Mammal Commission composed of three members appointed by and serving at the pleasure of the President. The second sentence of section 201(b) would require the President to make his selection from a list, submitted to him by the Chairman of the Council on Environmental Quality, of individuals knowledgeable in the fields of marine ecology and resource management. As a matter of policy we do not believe that the President's discretion is selecting appointees should be limited to those on a list prepared by a subordinate officer in the Executive Branch.

Under Section 202(c) (page 18, lines 12–19) all of the Commission activities and papers in its files, including those from other governmental officers and agencies, scientists and specialists in private life, and the public at large would be matters of public record. Thus, for example, the Commission activities on purely internal "housekeeping" matters, such as personnel actions, and papers and correspondence from another governmental agency or a scientist or specialist in private life in regard to the reports and recommendations pursuant to section 202(a) and (b) would be matters of public record.

Section 552 of Title 5, United States Code, codifies the Public Information Section of the Administrative Procedure Act, and is applicable to any federal agency, such as the Commission would be. That section prescribes the information on the agency rules, opinions, orders, records, and proceedings which shall be available to the public, and provides for judicial aid in enforcing its provisions. Section 552(b) excepts from public disclosure nine categories of information, including, for example, personnel files, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, and inter-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency. We question whether there are adequate grounds for substituting for this statute of general applicability to any federal agency the provisions of the first sentence of section 202(c) of the bill in the case of the proposed Commission.

It may be that 5 U.S.C. 552 would not require that all reports and recommendations which the Commission might make should be matters of public record. If so, and if they should be, the first sentence of section 202(c) may be amended to provide generally as follows: "The reports and recommendations which the Commission makes shall be matters of public record and shall be available to the public at all reasonable times."

Section 202(d) of H.R. 10420 (page 18, line 20 et seq.) would require the Secretary and other federal officials to respond to any Commission recommendations within 90 days after receipt thereof. This might well result in requiring priority in responding to Commission recommendations on comparatively minor matters, over other matters that might be more important in the public interest. Accordingly, it may be advisable to modify this requirement.

The second sentence of section 203 (page 19, lines 8–13) would provide for a nine-man advisory scientific Committee to be appointed by the Commission Chairman "with the advice of" the specified officials. This might raise a question as to whether all of them must concur in any such appointment. To avoid any such question, we suggest that for the quoted words on page 19, line 10, there be substituted such words as "after consultation with".

We also note that section 203 does not specify the term of office of a Committee member. We suggest that section 203 be amended to specify the tenure or method of removal of Committee members.

Under the third sentence in section 203, any recommendations made by the nine scientists constituting the Committee of Scientific Advisers "or any of its members" which were not adopted by the Commission should be transmitted by it to the appropriate federal agency and to Congress with a written explanation of the Commission's reasons for not accepting such recommendations. We question whether the Commission should be subject to such a requirement in the case of a recommendation of any member of the Committee in which a majority of its members do not concur. However, this presents a policy question as to which we defer to the Department of Commerce.

We also suggest the following specific amendments to the test:

In Section 3(1) (page 2, line 24), after "dolphin" there should be added "(family Delphinidae)" to avoid any confusion with the finfish dolphin, family Coryphaenidae.

We would amend the first line of section 101 (page 3, line 20) to add section 103 to the list of sections covering excepted situations.

We recommend that Section 101(2) be redrafted to avoid the apparent ambiguity as to antecedent and the uncertainty as to the scope of the words "appurtenant thereto."

In Section 103(e) the word 'with", following "which should accompany" on page 8, line 9 of the bill, should be omitted.

In Section 105(b), "remission of mitigation" on page 9, line 22, should be "remission or mitigation."

Section 106(c) should be amended by substituting "magistrates" for "commissioners" on page 10, line 17 of the bill, in accordance with Pub. L. 90–578, 28 U.S.C. 631–639.

In Section 106(e). for "auhorized" on page 11, line 3, should be "authorized" and "of" on page 11, line 5, should be "or".

Whether this legislation should be enacted involves considerations as to which the Department of Justice defers to the Departments of State, Commerce and the Interior.

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD G. KLEINDIENST,
Deputy Attorney General.

U.S. GOVERNMENT,
SMALL BUSINESS ADMINISTRATION,
Washington, D.C., August 19, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your letters of March 30, April 28, April 30, May 11, and August 10, 1971, requesting the views of the Small Business Administration on a number of bills (H.R. 6554, H.R. 7463, H.R. 6558, H.R. 8183, and H.R. 10420) which, in various forms, call for total or partial bans on the taking of ocean mammals—that is to say, animals in the categories of seal, whale, walrus, sea cow, sea otter, sea lion, polar bear, porpoise or dolphin.

There is reason to believe that the availability of products derived from the described animals is of prime importance to a substantial number of small concerns. Clearly, a significant reduction in this availability, such as might flow from the proposed prohibitions or limitations on takes, would have adverse effects on these concerns in the immediate future.

On the other hand, the fear is widely expressed that a continuation of hunting on the present scale will lead to the eventual extinction of the animals. In the long view, therefore, the imposition of suitable restrictions might be to the best interests of the firms in question.

However, we do not have sufficient factual knowledge to make a proper evaluation of the issues presented by the subject bills. Accordingly, we will not venture an opinion as to their merits.

It is our understanding that hearings will soon be held on this legislation. We look forward to the resulting information.

Sincerely,

THOMAS S. KLEPPE, *Administrator.*

SMITHSONIAN INSTITUTION,
Washington, D.C., September 22, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
U.S. House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Thank you for the opportunity to comment upon H.R. 10420, a bill "To protect marine mammals; to establish a Marine Mammal Commission; and for other purposes." Essentially, the bill provides for the issuance of permits under the close supervision of the Secretary of the Interior for the collecting or hunting of various marine mammals. Collection of certain marine mammals for scientific purposes may be had upon proper application for waiver.

The bill also provides for the establishment of a Marine Mammal Commission, the duties of which would include undertaking a comprehensive review and study of the activities of the United States pursuant to existing laws and international conventions relating to marine mammals. Members of the Commission would be appointed by, and serve at the pleasure of, the President. The Commission would be required to establish within three months of its inception a committee of scientific advisors on marine mammals. The Secretary of the Smithsonian Institution, in addition to the Director of the National Science Foundation and the Chairman of the National Academy of Sciences, would recommend to the Chairman of the Commission the names of nine scientists to serve on a committee of scientific advisors. The scientists must be knowledgeable in marine ecology and marine mammals affairs.

Of course, the Smithsonian Institution will make its expertise available to such a Commission, and the Secretary of the Smithsonian would be pleased to assist in making appropriate recommendations for membership on a committee of scientific advisors. With respect to the most effective means for attaining the objectives set forth in H.R. 10420, the Smithsonian Institution defers to the views of the Department of the Interior, the Department of Commerce, and the Department of State. Smithsonian scientists have been in touch on a working basis with each of these Departments regarding the bill. Their views will be reflected to a certain degree in the reports of these Departments.

The Office of Management and Budget has advised that there is no objection to the presentation of this report to the Congress from the standpoint of the Administration's program.

Sincerely yours,

S. DILLON RIPLEY, *Secretary.*

Department of State,
Washington, D.C., September 9, 1971.

Hon. Edward A. Garmatz,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

Dear Mr. Chairman: The Secretary has asked me to reply to your letters of March 30 and April 30 requesting respectively the Department's views on H.R. 6554 and H.R. 6558, identical bills "To protect ocean mammals from being pursued, harassed, or killed; and for other purposes."

H.R. 6554 proposes that the Congress make a finding "that ocean mammals are being ruthlessly . . . killed . . . [and] that many ocean mammals will become rare, if not extinct, unless steps are taken to prevent their slaughter." On this basis, the bill would declare it to be the public policy of the United States that all ocean mammals should be protected from slaughter and that negotiations should be undertaken with a view to obtaining a world-wide ban on the further slaughter of such mammals. Further, the bill would express the sense of the Congress that the Interim Convention on Conservation of North Pacific Fur Seals, 1957, should be permitted to expire in 1976 and that the Secretary of State should initiate negotiations with the other parties to the Convention and any other interested states for the purpose of obtaining international agreement to ban all killing of North Pacific fur seals, whether at sea or on land.

The Department recommends against the enactment of H.R. 6554 and H.R. 6558.

The United States has consistently demonstrated by its actions, both domestic and international, that it stands ready to take positive measures, and to seek agreement of other nations to such measures, for the protection and conservation of marine animals and other wildlife. We have negotiated a number of treaties and agreements relating to the protection of living marine resources, including two treaties specifically addressed to certain species of ocean mammals. These agreements have been based on the concept of conservation, one definition of which is to be found in the Convention on Fishing and Conservation of the Living Resources of the High Seas, adopted by the United Nations Conference on the Law of the Sea, 1958. Article 2 of that Convention states: "As employed in this Convention, the expression 'conservation of the living resources of the high seas' means the aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products." Thus, in terms of these agreements we have been dealing with marine animals as renewable resources to be used for the benefit of man.

The United States has also been moving forward with measures for the protection of those species of wildlife which, on the basis of scientific evidence, are deemed to be endangered or rare. The Endangered Species Conservation Act of 1969 (P.L. 91–135) authorizes the Secretary of the Interior to protect in various ways species which he finds, on the basis of scientific evidence, to be threatened with worldwide extinction. Included with in the latest list of species prepared pursuant to the Act are certain species of whales, the Mediterranean monk seal, dugongs and the West Indian manatee.

Further, the United States expects, dependent upon the appropriation of funds, to convene a world conference on protection of wildlife either in the fall of 1971 or the spring of 1972. A major objective of the conference will be to conclude a convention on this subject. For that purpose, the International Union for the Conservation of Nature and Natural Resources (IUCN) has prepared, in consultation with some 60 Governments, including that of the United States, a draft of such a convention which divides wildlife to be given special protection into two categories, those species which are threatened with extinction and those which are not yet so threatened but which require special measures to prevent "undue exploitation incompatible with their survival." No ocean mammals are listed in the first category; all species of otters, seals and sirenians (manatees, dugongs, etc.) are listed in the second category. The draft convention provides for additions to or amendments of the lists, based on the findings of competent scientists.

The Department has serious doubts that the evidence available supports the findings proposed by H.R. 6554. Giving full weight to the present findings of the Secretary of the Interior and the IUCN, it appears that at present manatees and dugongs, one species of seals and some species of whales are endangered and that other species of seals and sea otters need special measures of protection. From this, it may be inferred that most species of ocean mammals are not threatened or in danger of becoming so, though the Department must obviously disclaim any special scientific competence in the matter.

Since there appears to be no sound, scientific basis for a total ban on the killing of all marine mammals, we believe it quite unlikely that other Governments would be prepared to enter into negotiations to this end. The Department stands ready to seek international agreements for the conservation for rational use of species beneficial to man or for the protection of endangered species when a reasonable scientific case can be made that such measures are needed. We have found that other Governments are generally receptive to proposals of negotiations looking to agreements to cover such circumstances. On the other hand, whatever may be the ethical merits of the concept that a blanket prohibition on the killing of ocean mammals is a desirable end in itself, we believe that few, if any, other nations would at the present time be prepared to accept this concept as a basis for negotiations.

In passing, we might note that the taking of five of the eight species of whales on the endangered list published by the Secretary of the Interior has been prohibited for some years under regulations of the International Whaling Commission, of which the United States and the major whaling countries are members. The United States is continuing to seek more effective measures by the Commission for the conservation of the remaining three species. Further, the killing of northern fur seals is controlled through the North Pacific Fur Seal Commission. Conservation of the harp and hood seals of the northwestern Atlantic Ocean is among the responsibilities of the International Commission for the Northwest Atlantic Fisheries.

The 1957 Interim Convention on Conservation of North Pacific Fur Seals, the parties to which are the United States, Canada, Japan and the Soviet Union, is the successor to the 1911 treaty on this subject between the four countries. In the years prior to 1911 the fur seal herds had been decimated by indiscrimniate pelagic sealing—the killing of seals at sea. Since it was not possible to determine beforehand the sex or age of the animals, many females and immature seals were killed. Many animals were lost through wounding or sinking. By the time of conclusion of the 1911 treaty the herds on the Pribilof Islands had been reduced to perhaps 200,000 animals: the herds under Russian jurisdiction faced extinction.

The 1911 treaty forbade pelagic sealing to the nationals and vessels of the four parties. In exchange, the taking of fur sealskins was shared in such a way that the countries controlling the rookeries retained 70 per cent of the skins and distributed 30 per cent among the others. The treaty was highly successful in restoring the seal populations, so much so in fact that the Japanese Government as early as 1926 suggested a conference for modification of the convention on grounds that the seals had become too numerous. No conference was held, however, and the treaty continued until 1941 when it was terminated by notice given by Japan, in connection with which it was alleged by that Government that both direct and indirect damage had been inflicted on the Japanese fisheries by the increase of the fur seal populations.

The present Convention retains the prohibition on pelagic sealing and the basic features of the sharing formula. It also provides for research and for coordination of research and management plans through the North Pacific Fur Seal Commission, composed of one member from each party. The killing of the fur seals on the Pribilofs and the taking of the skins is conducted by the National Marine Fisheries Service, Department of Commerce, according to the management plan, which is addressed to the objective of bringing the herds to the level of maximum sustainable productivity and maintaining them at that level. We understand that the Pribilof population now numbers about a million and a half, with perhaps another half million from the Soviet rookeries.

Termination of the 1957 treaty would expose the fur seals to the possibility of resumption of the wasteful practice of pelagic sealing and consequent overexploitation. It is not certain, of course, that other countries would permit the resumption of the hunting of these animals at sea. It appears very doubtful, however, that other Governments, for example, that of Japan, would be prepared without any tangible *quid pro quo* to restrain their nationals from taking the seals for their valuable furs, particularly when these animals have been accused of causing damage to the fisheries. Moreover, we believe that the existence of an international conservation agreement, generally regarded as highly successful, constitutes a significant deterrent to additional countries which are in a position to engage in pelagic sealing. Termination of the treaty would remove this deterrent. Thus, the actions proposed by H.R. 6554 might well lead to a situation directly opposite to that desired by the proponents of the bill.

The Department considers it highly unlikely that an international agreement or agreements to ban all killing of North Pacific fur seals at sea or on land could be successfully negotiated. In addition to the considerations cited above, which pertain to countries not possessing rookeries, the Soviet Union is interested in bringing the herds on its rookeries to, and maintaining them at, the level which will provide the maximum sustainable yield of fur sealskins. The commercial kill by the Soviet Union on its rookeries was 16,306 seals in 1970 and 15,648 in 1969. Accordingly, we have no reason to believe that the Soviet Government would be amenable to a proposal to prohibit all killing of fur seals.

With respect to the interim arrangements regarding fur seals which are proposed by H.R. 6554, a major objective of the 1957 Convention is to bring the fur seal populations to and maintain them at "the levels which will provide the greatest harvest year after year. . . ." To maintain maximum sustainable productivity requires the elimination of certain numbers of surplus animals from the herds. Therefore, it is our understanding that an arbitrary limitation on the kill, such as is proposed by H.R. 6554 as an interim measure, would constitute a failure by the United States to carry out its treaty obligations.

In summary, the Department believes that this legislation should not be enacted because other national or international means are more appropriate for the conservation and protection of over-exploited or endangered species, that some provisions of the legislation are impossible of successful implementation, and that the provisions regarding fur seals would likely create a situation counter to that desired by the bill's proponents and would moreover require violation of United States treaty obligations. The Department therefore recommends against enactment.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

Sincerely,

DAVID M. ABSHIRE,
Assistant Secretary for Congressional Relations.

DEPARTMENT OF STATE,
Washington, D.C., September 9, 1971.

HON. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Your letter of August 10, 1971 requested the Department's comments on H.R. 10420 "To protect marine mammals: to establish a Marine Mammal Commission; and for other purposes."

The Department is in sympathy with the motives underlying H.R. 10420. In particular, we believe that the statement of findings in Section 2 provides an excellent basis for the further development of such international arrangements as may be necessary or desirable for the effective conservation and management of marine mammals.

In connection with the Section 2 (4) of the bill, the Department notes that the bill takes cognizance in Section 202 (a) (1) of the International Convention for the Regulation of Whaling and the Interim Convention on the Conservation of North Pacific Fur Seals, both of which contain provisions for research and conservation. In addition, the International Convention for the Northwest Atlantic Fisheries provides for research on and conservation of harp and hood seals in the northwest Atlantic, the provisions of the Convention having been extended to cover these marine mammals by the Protocol of July 15, 1963. It may also be of interest that the Department will convene in Washington, D.C., next April, in cooperation with the Department of the Interior, an international plenipotentiary conference for the purpose of concluding a convention on the conservation of rare and endangered species of the world's wildlife.

The basic working document of the conference will be the draft Convention on the Export, Import and Transit of Certain Species of Wild Animals and Plants, prepared by the International Union for the Conservation of Nature and Natural Resources. The present draft convention would prohibit the import and export of all species of Sirenia (dugongs, manatees, etc.) except for scientific purposes and would regulate trade in polar bears, see otters, the Guadelupe fur seal and the walrus by requiring export permits.

Section 101 (2) of H.R. 10420 would make it unlawful, except as provided in Sections 102, 107 and 109, for any person or vessel to take any marine mammal in waters under the jurisdiction of the United States, which waters are defined by Section 3 (5) (B) to include the nine-mile fisheries zone established pursuant to the Act of October 14, 1966. In this connection, the Agreement of December 11, 1970 between the United States and Japan on Certain Fisheries off the Coast of the United States of America provides that Japanese nationals and vessels may conduct certain fishing operations within the nine-mile fisheries zone off our coast, including whaling in certain waters of the zone off the coast of Alaska. At the same time Japan provides certain concessions of benefit to American fishermen on the high seas seaward of the nine-mile zone. This Agreement, negotiated under the provisions of Public Law 88-308 and Public Law 89-658, expires December 31, 1972, unless extended by the two Parties. In the circumstances the Department suggests that in Section 101 (2) immediately after the words "United States" there is inserted the following: ", except as expressly provided by an international agreement to which the United States is a party.".

We believe that the intent of Section 108 of the bill might be made more clear by incorporation of a reference to the principles upon which the proposed international program would be based.

We believe also that the principal responsibility for advancement of such international program should rest with the Secretary of State. Accordingly, it is suggested that the Committee may wish to consider, as a substitute for the present language, a rewording of Section 108 along the following lines: "The Secretary, in cooperation with the Secretary of State and other appropriate Federal officers and agencies, shall develop an international program for the conservation of marine mammals in accordance with the findings of Section 2 of this Act. The Secretary of State shall take every feasible step to encourage the adoption of international arrangements which would be appropriate for effectuating such program."

The provisions of Section 110 of H.R. 10420 could bring into question the fulfillment by the United States of its treaty obligations. The Interim Convention on Conservation of North Pacific Fur Seals is not simply a device for compensating certain other countries for their action in refraining from taking fur seals on the high seas. A primary objective of the treaty is to bring the fur seal populations to and maintain them at "the levels which will provide the greatest harvest year after year, with due regard to their relation to the productivity of other living marine resources of the area . . ." In order to determine and to put into effect the measures required to achieve this objective the treaty also provides for adequate scientific research on the fur seal resources and for coordination of research and management plans through the North Pacific Fur Seal Commission, composed of one member from each party.

The size and composition of the annual commercial kill from the herds is based on recommendations of the Commission made in accordance with the Convention's provisions, which require that such recommendations be based in turn on the findings obtained from the coordinated research programs. The Convention also specifies that decisions and recommendations of the Commission shall be made by unanimous vote, provided that only those parties sharing in the sealskins from a particular herd shall vote with respect to any recommendations regarding the size and composition of the commercial kill from that herd.

Section 110 of the bill appears to contemplate the possibility of action by the United States to terminate or substantially curtail the taking of fur seals on the Pribilof Islands without reference to the findings and recommendations of the North Pacific Fur Seal Commission. In the Department's view, such action without, at the least, consultation with the other parties to the Convention would not be consistent with United States treaty obligations. The Department therefore suggests that consideration be given to a modification of the language of the second sentence of Section 110, perhaps along the following lines: "If, as a result of such review, the Secretary determines that such activities should be significantly curtailed or terminated, then he shall request the Secretary of State to consult with the other parties to the Interim Convention on Conservation of North Pacific Fur Seals with a view to effectuation of such curtailment or termination and to arrangements whereby, during the period between the date of such curtailment or termination and the date of the expiration of the Convention, Canada and Japan would each be given the opportunity to select one of the following options in lieu of receiving the share of fur sealskins which such country would otherwise be entitled to receive under the provisions of the Convention . . ."

Subject to the foregoing comments, the Department sees no objection to H.R.

10420 from the standpoint of the foreign relations of the United States. With respect to other aspects of the bill, the Department defers to the views of the Departments of Commerce and the Interior.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

Sincerely,

DAVID M. ABSHIRE,
Assistant Secretary for Congressional Relations.

DEPARTMENT OF STATE,
Washington, D.C., September 28, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Your letter of September 14, 1971 requested the comments of the Department of State on H.R. 10569, "To protect ocean mammals from being pursued, harassed, or killed, and for other purposes".

H.R. 10569 appears to be a revision of H.R. 6558 so as to provide primarily for renegotiation and renewal of the 1957 Interim Convention on Conservation of North Pacific Fur Seals in the event that a new treaty to ban all killing of northern fur seals cannot be successfully negotiated prior to the expiration date of the 1957 Convention. The Department's comments on H.R. 6558 were conveyed to you by my letter of September 9, 1971.

We consider that the provisions of H.R. 10569 relating to possible renewal of the present fur seal treaty are an improvement, though it appears in any event that certain changes in that treaty would be required because of the provisions of Section 402 of the bill, which would impose new conditions as to the numbers and categories of seals which might be killed and as to the sharing arrangements with Canada and Japan.

Otherwise, the Department recommends against the enactment of H.R. 10569 for essentially the same reasons as given in our report on H.R. 6558. The broad approach of the bill does not take into account the different circumstances of different species of marine mammals, and the Department believes that other national and international means are more appropriate for the conservation and protection of over-exploited or endangered species, including the measures expected to develop from the world conference on protection of wildlife which the United States will convene in April, 1972. Further, we believe that few, if any, other nations would at the present time be prepared to enter into negotiations looking to a complete prohibition of the killing of all marine mammals. In addition, the interim provisions of Section 402 of the bill relating to action under the present fur seal treaty would, at least in the short term, being into question the fulfillment of United States treaty obligations.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report.

Sincerely,

DAVID M. ABSHIRE,
Assistant Secretary for Congressional Relations.

OFFICE OF THE SECRETARY OF TRANSPORTATION,
Washington, D.C., September 10, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for this Department's comments on the following bills:

H.R. 6554—"To protect ocean mammals from being pursued, harassed, or killed; and for other purposes."

H.R. 6558—"To protect ocean mammals from being pursued, harassed, or killed; and for other purposes."

H.R. 7463—"To protect seals from being pursued, harassed, or killed; and for other purposes."

H.R. 8183—"To protect ocean mammals, and for other purposes."

Enforcement of the proposals, if enacted, would not appear to require significant additional law enforcement activity on the part of the Coast Guard. However, we defer to the Departments of Interior, Commerce, and State on the desirability of the bills.

The Office of Management and Budget advises that from the standpoint of the Administration's program there is no objection to the submission of this report to the Committee.

Sincerely,

JOHN W. BARNUM,
General Counsel.

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., September 8, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Reference is made to your requests for the views of this Department on H.R. 6554 and H.R. 6558, identical bills, "To protect ocean mammals from being pursued, harassed, or killed; and for other purposes."

Title II of this bills would make it unlawful for any person or vessel subject to the jurisdiction of the United States to engage in taking, transporting, importing, offering for sale or possessing, all ocean mammals or any part thereof. Certain exceptions are made for Indians, Aleuts, Eskimos, medical and scientific research uses and for municipal and/or other nonprofit zoos.

Vessels and their equipment used in violation of the proposed law, as well as ocean mammals or the monetary value thereof, would be subject to seizure and forfeiture as for violation of the Customs laws. The bills would also impose criminal liabilities of fine or imprisonment, or both, for convictions of first and subsequent offenses.

Enforcement of Title II would be the joint responsibility of the Secretaries of State, Treasury, Interior, Commerce and Transportation. The bills would authorize them to issue regulations to carry out the provisions of Title II. To avoid the question of whether joint regulations are intended, we suggest if the proposed legislation is to be favorably considered that the Committee report include a statement that each Department is to issue regulations in its respective area of responsibility.

Title III of the bills would terminate the North Pacific Fur Seal Convention and ban the importation of all skins or parts of the Alaskan Fur Seal. This Title would also establish, as a preservation measure, a Pribilof Seal Rookery under the Department of the Interior and a Pribilof Islands Commission, on which would serve the Secretary of the Treasury or his designate.

This Department has no comment on the merits of the proposed legislation. The primary administrative and enforcement interests would seem to be in the Departments of the Interior, State and Commerce. The Department anticipates no unusual administrative or enforcement responsibilities which those Departments, together with this Department and the Department of Transportation, would not be able to fulfill cooperatively.

The Department anticipates that the seizure and forfeiture provisions of the proposed legislation, if it is enacted, involving dispositions of violating vessels, cargos and related property, would place certain enforcement responsibility on the Bureau of Customs, adding additional duties to the existing enforcement workload of Customs officers.

The Department has been advised by the Office of Management and Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

SAMUEL R. PIERCE, Jr.,
General Counsel.

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., September 9, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on H.R. 7463, "To protect seals from being pursued, harassed, or killed; and for other purposes."

Title II of the bill would make it unlawful for any person or vessel subject to the jurisdiction of the United States to engage in taking, transporting, importing, offering for sale or possession, seals or any part thereof. Certain exceptions are made for Indians, Aleuts, Eskimos, medical and scientific research uses and for municipal and/or other nonprofit zoos.

Vessels and their equipment used in violation of the proposed law, as well as seals or the monetary value thereof, would be subject to seizure and forfeiture as for violation of the Customs laws. The bill would also impose criminal liabilities of fine or imprisonment, or both, for convictions of first and subsequent offenses.

Enforcement of Title II would be the joint responsibility of the Secretaries of State, Treasury, Interior, Commerce and Transportation. The bill would authorize them to issue regulations to carry out the provisions of Title II. To avoid the question of whether joint regulations are intended, we suggest if the bill is to be favorably considered that the Committee report include a statement that each Department is to issue regulations in its respective area of responsibility.

Title III of the bill would terminate the North Pacific Fur Seal Convention and ban the importation of all skins or parts of the Alaskan Fur Seal. This Title would also establish, as a preservation measure, a Pribilof Seal Rookery under the Department of the Interior and a Pribilof Islands Commission, on which would serve the Secretary of the Treasury or his designate.

This Department has no comment on the merits of the bill. The primary administrative and enforcement interests would seem to be in the Departments of the Interior, State and Commerce. The Department anticipates no unusual administrative or enforcement responsibilities which those Departments, together with this Department and the Department of Transportation, would not be able to fulfill cooperatively.

The Department anticipates that the seizure and forfeiture provisions of the bill, if it is enacted, involving dispositions of violating vessels, cargos and related property, would place certain enforcement responsibility on the Bureau of Customs, adding additional duties to the existing enforcement workload of Customs officers.

The Department has been advised by the Office of Management and Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

SAMUEL R. PIERCE, Jr.,
General Counsel.

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., September 9, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on H.R. 8183, "To protect ocean mammals, and for other purposes."

Title II of the bill would make it unlawful for any person or vessel subject to the jurisdiction of the United States to engage in taking, transporting, importing, offering for sale or possession, ocean mammals or any part thereof. Certain exceptions are made for Indians, Aleuts, Eskimos, medical and scientific research and for public or private nonprofit zoos.

Vessels and their equipment used in violation of the proposed law, as well as ocean mammals or the monetary value thereof, would be subject to seizure and forfeiture as for violation of the Customs laws. The bill would also impose criminal liabilities of fine or imprisonment, or both, for convictions of first and subsequent offenses.

Enforcement of Title II would be the joint responsibility of the Secretaries of State, Treasury, Interior, Commerce and Transportation. The bill would authorize them to issue regulations to carry out the provisions of Title II. To avoid the question of whether joint regulations are intended, we suggest if the bill is to be favorably considered that the Committee report include a statement that each Department is to issue regulations in its respective area of responsibility.

Title III of the bill would terminate the North Pacific Fur Seal Convention and ban the importation of all skins or parts of the Alaskan Fur Seal. This Title would also establish, as a preservation measure, a Pribilof Seal Rookery under the Department of the Interior and a Pribilof Islands Commission, on which would serve the Secretary of the Treasury or his designate.

This Department has no comment on the merits of the bill. The primary administrative and enforcement interests would seem to be in the Departments of the Interior, State and Commerce. The Department anticipates no unusual administrative or enforcement responsibilities which those Departments, together with this Department and the Department of Transportation, would not be able to fulfill cooperatively.

The Department anticipates that the seizure and forfeiture provisions of the bill, if it is enacted, involving dispositions of violating vessels, cargos and related property, would place certain enforcement responsibility on the Bureau of Customs, adding additional duties to the existing enforcement workload of Customs officers.

The Department has been advised by the Office of Management and Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

SAMUEL R. PIERCE, Jr.,
General Counsel.

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., September 17, 1971.

Hon. EDWARD A. GARMATZ,
Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: Reference is made to your request for the views and recommendations of this Department on H.R. 10420, a bill "To protect marine mammals; to establish a Marine Mammal Commission; and for other purposes."

Section 2 of the bill would find that certain species and population stocks of marine mammals are, or may be, in danger of disappearance as a result of man's activities; since marine mammals have proven to be resources of great international significance, it would declare it to be the sense of Congress that they should be protected to the greatest possible extent commensurate with sound policies of resource management.

Sections 101–103 of Title I of the bill would make it unlawful, with certain exceptions, for any person or vessel subject to the jurisdiction of the United States to take any marine mammal, use places under United States jurisdiction in violation of the bill, or for any person to possess, transport, sell, or offer for sale in interstate commerce, or import into the United States, any marine mammal or part thereof. Certain limitations on, and permits for, the taking of ocean mammals would be prescribed and issued by the Secretary of the Interior. Exceptions would be made for traditional, non-commercial taking by Indians, Aleuts and Eskimos. The Secretary of the Interior would be authorized to consent to the capture of marine mammals by qualified persons for public display or educational purposes, or for legitimate scientific or medical research, as well as under cooperative arrangements with States.

Section 104 of the bill would provide for personal violators a civil penalty which may be compromised by the Secretary of the Interior; criminal liabilities of a fine or imprisonment for knowing violators are also provided.

Section 105 would provide that vessels and equipment used in violation of the proposed law, as well as marine mammals or parts, or the monetary value thereof, shall be forfeited, as for violation of the Customs laws.

Section 106 would provide that the Secretary of the Interior shall enforce the provisions of Title I and states that "any person authorized by the Secretary to enforce this title" may execute any pertinent warrant or process or make relevant arrests, searches or seizure.

In addition to directing the development of an international protective program, the bill would direct a review of current activities under the North Pacific Fur Seal Convention.

Title II of the bill would establish a Marine Mammal Commission which would study the marine mammal situation generally, make appropriate recommendations, and coordinate activities with, and use facilities of, other Federal agencies.

This Department takes no position on the merits of the bill. The primary administrative and enforcement interests would seem to be in the Departments of the Interior, State, and Commerce, although officers of the Bureau of Customs would assist at ports of entry. The Department anticipates no unusual administrative or enforcement responsibilities which cannot be fulfilled in cooperation with the other interested Departments.

Similar bills (H.R. 6554; H.R. 6558; H.R. 7463; H.R. 8183; S. 1315), would identify a joint responsibility of the Secretary of the Treasury, among others, with respect to enforcement measures. Since Treasury (Customs) officers have considerable search, seizure and arrest powers under existing tariff and related laws, we suggest that the Committee consider a reference to the joint responsibility of the several Departments likely to be involved, and include the language "in addition to any other authority" when referring to persons authorized to enforce the bill's provisions.

It is suggested that section 111 of Title I of the bill be extended so as to authorize regulations to be prescribed by the Secretary of the Treasury in fulfillment of the Department's enforcement responsibility.

The Department anticipates that the seizure and forfeiture provisions of the bill, involving Customs dispositions of violating vessels, cargos and related property, foreseeably will add to the existing Customs enforcement workload.

The Department has been advised by the Office of Management and Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

ROY T. ENGLERT,
Acting General Counsel.

Mr. DINGELL. I would like to insert a memorandum on the general subject of marine mammals, prepared by Frank Potter, counsel to the subcommittee. As an accommodation to the members of the committee, the memorandum will be inserted at this point in the record.

(The information follows:)

U.S. HOUSE OF REPRESENTATIVES,
COMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, D.C., September 7, 1971.

To: Members, Subcommittee on Fisheries and Wildlife Conservation.
From: Frank M. Potter, Jr., counsel.
Subject: Marine mammal protection.

There are many bills presently pending before the Committee which deal with protection of some or all species of marine mammals. Some provide research authority only (H.R. 6804 by Mr. Whitehurst), some deal with only certain types of marine mammals (H.R. 7463, by Mr. Anderson of California.), some are directed at the humane or inhumane methods of taking (H. Con. Res. 77, by Mr. Ryan and others; H.R. 4370, by Mr. Helstoski). Mr. Pryor has introduced, with some 100 cosponsors, a bill which would impose an absolute ban upon the taking of all such mammals (H.R. 6558 and others), and Mr. Anderson and several others have introduced an alternative which would impose such a ban, but would permit the Secretary of the Interior to issue permits for the taking of marine mammals, after full public review (H.R. 10420).

The Harris-Pryor bill (H.R. 6558) and the Anderson-Pelly bill (H.R. 10420) appear to involve the most comprehensive treatment of this complex problem. Copies of both bills were sent to a wide selection of experts and interested persons for comment by Mr. Dingell on August 12, and many of these will doubtless be communicating with the Committee.

In preparing for these hearings, I have read a vast amount of material on ocean mammals, and have interviewed a number of people who seemed to be knowledgeable on the subject: conservationists, government officials, scientists and others. While this material is, of course, available to anyone who wishes to see it, its bulk precludes general distribution. I thought that it might of helpful to the Committee if I were to identify some of the critical issues that may emerge during the course of hearings on this subject, and to supply background information that may put these issues into somewhat clearer perspective.

Attached as appendices to this memorandum are summaries of the Harris-Pryor Bill (The Ocean Mammal Protection Act of 1971) and of the Anderson-Pelly bill (The Marine Mammal Protection Act of 1971), and a list of the questions put to the experts and interested persons in Mr. Dingell's letter of August 12.

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I. Issues which may surface during hearings.
II. Comments on marine mammal protection generally.
III. Comments on particular types of marine mammals:
    1. Whales.
    2. Eared seals (fur seals and sea lions).
    3. Earless (or true) seals.
    4. Walruses.
    5. Sea otters.
    6. Polar bears.
    7. Sea cows.

ISSUES WHICH MAY SURFACE DURING HEARINGS

1. Where should the line be drawn between federal as opposed to state enforcement of protection of marine mammals?

2. Should Federal research authority for marine mammals, presently quite small and scattered, be coordinated and expanded? If expanded, to what level?

3. Is it desirable, practical and possible to reinstate authority for management of marine mammals in one agency, such as Interior? Until last year, Interior had these, but the transfer of the Bureau of Commercial Fisheries to the Department of Commerce last October transferred responsibility for seals and whales (except as these may be endangered, and thus still within the responsibility of the Office of Endangered Species in Interior.) This issue should also be considered in the light of the probability of the creation of a Department of Natural Resources, which would reunite these two lines of authority.

4. What should be the relationship of any bill to come out of the Committee to the existing Whaling and Fur Seal Acts?

5. Should the government be given the authority to restrict the importation of marine mammals, or products of these, in cases where these have been taken in other countries by methods which the U.S. will not permit?

6. Should an absolute ban or moratorium be imposed upon the hunting or killing of certain types of marine mammals?

7. Should greater urgency be impressed upon the Department of State to bestir itself to develop more effective international agreements for the protection of marine mammals which currently have little or none?

8. Should porpoises knowingly taken in the course of American tuna fleet operations be excluded from protection?

9. Should "finders' fees" be added to the criminal sanctions, to encourage more adequate enforcement of a law which might be difficult to enforce without it?

10. Are the criminal penalties in these bills adequate? (The profits from killing a large whale can be larger than the potential fines.)

11. Should greater restrictions be placed upon the capture of marine mammals for public display in zoos, private collections, commercial "Marinelands" and the like? The major incentive for these organizations to take adequate care of their animals is often only the cost of their replacement, and in coastal areas, this cost may well be negligible.

COMMENTS ON MARINE MAMMAL PROTECTION GENERALLY

The principal use of marine mammals by man today are (a) furs, for a luxury, market, (b) meat, for consumption by natives and as food for mink and cats, (c) oil and spermaceti from the sperm whale (barred from the U.S.A. as of December 1971), and (d) "sport", in the case of the polar bear.

The extent of Federal interest and control over marine mammals varies widely. It is intense in the case of the Alaska fur seal, and it is virtually nonexistent in the case of animals such as walruses and hair seals.

There are few international agreements for the protection of marine mammals. There is a treaty for the management of the fur seal, which is generally considered to be successful, and there is a treaty for the regulation of whaling, which is rarely considered to be successful. These treaties lack adequate funding, and many consider them to be relatively toothless.

Federal research funding for marine mammals is concentrated on whales and fur seals, with limited funds available for polar bears and sea otters. The annual research budget for marine mammals in the Interior and Commerce Departments combined is less than $200,000.

Scientists generally will state that our level of knowledge of marine mammals is very low. The only real exception to this is found in the case of the fur seal, and even here our system of experimentation seems to be on the order of "Let's wiggle it and see what happens".

Conceivably, one or more of the marine mammals may prove to be of great importance to mankind in the future. This strengthens considerably the arguments of those who claim that greater protection should be given to species which are endangered, or which might conceivably become endangered. Also to be considered in this context is that all of these animals are dependent upon the oceans for their survival, and the evidence before the Committee has been that the oceans are becoming more polluted, hence increasing the biological stress upon all animals in it. This suggests that we should be far more conservative in our projections of what level of "cropping" or management any given species can take without severe attrition.

Barring better and more information, it would therefore appear to be wise to adopt a cautious attitude towards the exploitatiion of marine mammals. This approach was strongly endorsed at the recent international conference on the biology of whales; one of the scientific working groups stated clearly that those who wish to use a given species or population stock of animals should carry the burden of demonstrating that the rate of killing will not endanger that species or stock.

COMMENTS ON PARTICULAR TYPES OF MARINE MAMMALS

THE WHALE (ORDER CETACEA)

Whales are generally classified as belonging to one of two groups: baleen whales and toothed whales. The baleen whales (as might be expected from the categories) have no teeth, but instead feed on plankton and tiny animals, strained through plates of baleen or whalebone which act as sieves. The baleen whales tend to be larger in size, and are far scarcer than the toothed whales. They have been more heavily hunted and killed than most of the toothed whales, some to commercial and perhaps even to biological extinction.

Seven of the eight species of whales on the endangered list are baleen whales: the blue, grey, bowhead, right, fin, sei and humpback whales. Also members of this suborder are the minke whales, which tend to be small in size, and which therefore until recently have been largely ignored by the whalers. There are indications, however, that hunting of minke whales is on the increase, and so it may just be a question of time before these too join the others on the list of endangered or extinct species.

Scientists have expressed particular concern for the protection of the baleen whales, since these are highly efficient harvesters of small ocean life which cannot otherwise be effectively gathered. Thus, the reasoning goes, we would be well advised to preserve these animals, if for no other reason than their ability to serve as a source of food in the future. If these whales should be lost, a resource of tremendous potential value would be irretrievably beyond our grasp.

The more numerous toothed whales include many species of porpoise, and dolphins, as well as the sperm whale (the only toothed whale on the endangered list). The major traditional use of the sperm whale has been for oil and spermaceti, although this use is now about to be terminated since products from whales on the endangered list may no longer be imported in the U.S. after December, 1971. Few other members of the toothed whale suborder are taken deliberately at this time, although the U.S. tuna fleet is known to kill as many as 200,000 porpoises per year in the course of the operation of its purse seine fleet, and other nations may be doing the same.

Porpoises are tied to the surface of the sea because they breathe air; they feed with tuna, and this makes it a relatively simple matter for the tuna fleet to find where the tuna may be found: they just look for feeding porpoises and draw their seines around the feeding activity. Some effort is reportedly made by the fishermen to frighten the porpoises away by cherry bombs in the water and other methods, but these are far from successful. Although porpoises can and do leap above the surface of the water, when frightened they tend to dive, and they run into the nets. A biologist in the National Marine Fisheries Service is studying this problem, and an effort will be made to develop more information on the subject in the hearings.

NMFS also grants scientific and other permits for the taking of whales by U.S. nationals. In recent years, this bureau, operating from various departments, has issued up to 200 permits a year for the taking of whales of the categories listed as endangered (sperm and grey whales).

The major fleets now engaged in whaling are Japanese (3 feets), Russian (3 fleets) and Norwegian (1 factory ship). In addition there are known to be "pirate" whaling operations, based in countries which are not signatories to the 1946 International Convention for the Regulation of Whaling; what is not known is the extent to which these fleets are continuing to make inroads on species which even the IWC is willing to protect.

The International Whaling Commission has been in existence since 1948, and many feel that it has been very much less then successful. Although there is a body of scientists who sit as advisors to the Commission, the Commission has often failed to follow the advice of its advisors, invariably in the direction of catching more whales than the scientists consider wise.

The Conservation community has been attempting for years to develop an international observer scheme, permitting representatives of other countries to be present on the whaling ships to ensure that only whales of permitted species, size and sex will be caught. The IWC has accepted the proposal "in principle" for a number of years without ever implementing it. The current U.S. Commissioner, Dr. J. L. McHugh, reports that "substantial progress" toward this objective was made at the last meeting of the Commission in June of this year. Only time will tell if his hopes will be fulfilled, and no one can say how much time species such as the Blue Whale have left to them.

Another sore point with international conservationists has been the existence of quotas for whaling fleets set by reference to the "Blue Whale Unit" (1 BWU = 2 fin whales 2½ humpback whales or 6 sei whales). The imprecision inherent in this system is apparent; the feeling is that future catches must be regulated by species and population stocks if these whales are to be protected adequately. The Commission did agree to set quotas by species at next year's meeting in London.

The real problem confronted by the IWC is that it is essentially toothless. It must convince all nations of the correctness of its position, and any nation which dissents may in effect veto any position of the Commission. It has no police powers, a tiny budget, and no way to control nationals of countries which are not signatories to the Convention. Its defenders within the Departments of State and elsewhere have generally adopted the position that "They do the best they can"; its opponents respond in the manner of the common law "demurrer": "That may be true, but it is simply not adequate".

Federal research on whales within the Departments of Commerce and Interior is tiny—on the order of $80,000 per annum. It is clear that much more must be known about the world's whales, if they are to survive as significant elements of the world's oceanic ecosystem; but it is also clear that stronger measures are needed to provide some assurance that the whales will continue to be in existence, when and as this information is gathered.

It seems likely that the pressure on the remaining whales not yet listed as formally "endangered" will increase, both as a source of funds and as a source of food for a protein-hungry world. Rumors, not yet confirmed, are that some nations in the South Pacific are giving serious consideration to tooling up to catch porpoises and dolphins for food. Whether or not this is true today, it will probably be true at some time in the future, unless steps are taken today to prevent this.

Most of these points were specifically taken up and discussed in detail at a recent international conference on the biology of whales, held in the Shenandoah National Park in the week preceding the IWC meeting. While the proceeding of the conference are not yet available, we have a copy of the reports of the working groups and a digest of the major conference conclusions, which will be available to the Committee.

The report itself bears careful reading.

Other points made in the course of the conference were:

Whale stocks at low levels should be encouraged to grow to higher population levels, as opposed to the maintenance of the status quo.

A great deal more knowledge is required if whale species and stocks are to be effectively managed.

Whales can be used as effective monitors of ocean quality, since they can be more easily observed than fish.

The burden of proof should rest on the harvester to show that his activities will not endanger a species or stock.

THE EARED SEALS (AND SEA LIONS)

Members of this family include the sea lions and the fur seals. The sea lions are not heavily utilized; several thousand are believed to be taken each year in Alaska from a population of perhaps a half million, for food and hides. In California, the sea lions are protected under state regulation.

The major controversy as to this family concerns the Alaska fur seal, taken by the thousands each summer on the Pribilof Islands, in the Bering Sea. No one contends that the species is endangered; although its population has fluctuated widely, from a reported 5 million to perhaps 215,000, the herd size today is estimated at 1.3 to 1.5 million, of which a substantial proportion is immature and not yet available for breeding.

The fur seal was first commercially utilized by Russian fur traders, who made substantial inroads on the population of the fur seals in the 18th and early 19th centuries. The United States acquired Alaska in 1867 for $7,200,000, and one of the major incentives for the purchase was the fur seal reserves.

Perhaps the major reason for the heavy attrition suffered by the fur seal was the fact that it had been traditionally killed in the water, by pelagic sealing. This made it impossible to distinguish between males and females; if a female was taken, it could mean the death of a fetus and an immature pup as well. The fur seal is polygamous by nature, and when they reach the rookeries in the Pribilofs, the mature females congregate in "harems" of up to 100, but averaging about 40 per bull. Since the sex ratio at birth is approximately equal, this means that a large number of bachelors are left with only their own company. A long-standing policy of killing only males was broken in 1955 to permit the killing of females as well; the earlier policy was reinstated in the 1969 season and is in effect today. The kill of females in 1968 was 13,335.

The process of killing the seals is not complicated: each morning a crew goes out to one of the areas in which the bachelors congregate, and then drives a number of these inland to a killing ground. Small groups are cut out from the herd, and then these are killed as promptly as possible by hitting them over the head with a hardwood club and then cutting a major artery. The clubbing is usually enough to kill them if it is done accurately.

The number killed each year will vary somewhat; it is set not by quota but by the time within which killing is allowed. In recent years this has generally been the last week in June and all of July. Since the seals arrive in waves, beginning with the oldest, this is expected to ensure that enough males survive each year to carry on the propagation of the species. Efforts are made to concentrate on the 3 and 4 year-olds, and males do not usually reach breeding age until they are 10 or so.

The word for the fur seal program is "management". Scientists have been experimenting for years with various procedures for selecting which seals are and are not to be killed. There has been a continuing effort to develop "humane" ways by which these animals are to be killed, but the Department of Commerce (which inherited the program as a function of the Bureau of Commercial Fisheries in the 1970 Reorganization) claims that clubbing and sticking is the most humane (and safest for the clubbers) method yet devised.

There are approximately 600 inhabitants on the islands of St. Paul and St. George in the Pribilof group. These are descendants of people transported to the islands as slave labor by the Russians in the 18th and 19th centuries. Roughly ⅓ of the 176 persons employed in the annual taking of fur seals are from these islands the rest are from Alaska, the Aleutians and the "lower 48". The natives skin the seals and give the skins preliminary treatment before they are shipped to the mainland for ultimate processing.

The Fouke (pronounced Fowk) Company of South Carolina has had a negotiated contract for several years with the Federal government to process these skins and then to sell them for the account of the United States. The Fouke Company sends observers to ensure that the skins are handled properly before shipment.

Fouke holds auctions each spring and fall for the sale of skins from the Alaska kill, and at these auctions skins are sold for the United States, Russia and Japan. The price of skins has been declining somewhat in recent years, perhaps in part as the result of expressions of concern by animal lovers. The Fouke share of the sale is tied to the sale price and computed by a complicated formula; it is estimated that Fouke's share in recent years has run to as much as 40% of the sale price of the skins (averaging plus or minus $80). The proceeds of the sale, after deducting the Fouke share, are applied to the operation of the Pribilof islands and research connected with the fur seal operation. Any funds remaining go 70% to Alaska, and 30% to the Pribilof Fund. Last year there were no net profits, although in earlier times the state of Alaska received up to $1 million from this program in one year.

There has been in existence since 1911, interrupted only by World War II, a treaty governing the taking of fur seals. This treaty, to which the United States, the USSR, Canada and Japan are signatories, governs the taking of fur seals by these nations. It provides, in effect, that seals may be taken only in their rookeries on a commercial basis. Since these rookeries are U.S. and Russian, these countries are entitled to the lion's share of the skins. Canada and Japan, which had extensive pelagic sealing operations, have each agreed to forego these in return for a 15% share of the take from both this country's and Russia's operations. The present treaty has been extended until 1975, and will terminate in 1976 unless further extended.

Concern has been expressed that the termination of these treaties would mean a return to the old, wasteful methods of pelagic sealing, on a "catch as catch can" basis. If these concerns were to prove correct, it seems likely that the population of the fur seal herd would decline precipitously. While it is possible to point to deficiencies in the current program, it must also be said that current management practices assure that the fur seal herd is in no danger of disappearance.

It appears that the herd is not growing as fast as we would like; it may even be declining. The Bureau of Commercial Fisheries had previously stated that it was attempting to stabilize the herd at the level of 500,000 pups born each year (see, for example, 1969 Annual Report of Pribilof Sealing Operations, page 1), but estimates are that only around 300,000 pups are currently being produced. It would appear, however, that policies of taking only "excess" males, if not changed because of the short-term advantages of overexploitation, should ultimately bring the herd to a larger level. Whether or not this is large enough is not clear. The annual take of fur seals in the 1970's was roughly 100,000 per year, although this level of killing could not be sustained by the herd at its present size. It also appears that the annual "take" of fur seals has been declining in recent years, from a high in 1955 of 125,000 to just over 30,000 this year. There is, as might be expected, controversy between scientists and others as to how large the herd should be allowed to grow; others argue the question is essentially one of ethics or morality. This issue will certainly surface in the hearings.

The letter to Members of the Congress from the hunting and conservation groups was accompanied by a document entitled "The Harvest of the Pribilof Fur Seals: A Fact Sheet". This document, with minor changes, is a replica of another with the same name published by the Department of Commerce. While the "facts" in this document are essentially correct, it should be recognized that it was prepared by the government to support a continuation of the status quo and should be read in that light. Other facts with equal relevance, but not supporting the same conclusion, were of course not stated. (See pp. 509–515.)

The annual research program on the fur seal is approximately $250,000. There is virtually no Federally funded research on any other species in the family of eared seals.

THE EARLESS (OR TRUE) SEALS

Animals within this classification include the Harbor Seal, the Ringed Seal, the Harp Seal, the Grey (or Atlantic) Seal, the Monk Seal, Ross's Seal, the Sea leopard, the Hooded Seal, and the Sea Elephant. Few of these are endangered; Interior lists only the Caribbean Monk Seal as endangered (it is probably extinct), and states that the Ribbon and Hawaiian Monk Seals are "rare".

In this category the animal that has received the greatest public attention is the Canadian Harp Seal. This is the baby seal which is killed by the hundreds of thousands each Spring; the annual killing for the past few years has been covered by journalists from all over the world. While the Harp seal may not be listed as endangered, it is surely in trouble. The size of the herd has been estimated at 1.3 to 1.5 million—roughly the same as the size of the Alaska Fur Seal—yet the number of baby seals killed last year was 240,000—6 to 8 times the number of fur seals killed in the Pribilofs. The St. Louis Post Dispatch carried a story on March 25, 1971, which indicated that the chief Canadian biologist for the Harp Seal program had indicated that the 1971 kill should not exceed 140,000, but that the official quota set by the Canadian government was 240,000.

There are a great many varieties, and species of eared seals; they are mainly taken for their hides. No one appears to know the extent to which they are taken by U.S. citizens or within U.S. waters, or even imported. As far as is known, the only one of these species that is protected in any way by Federal law is the Hawaiian Monk Seal, which is protectable as a resident of the Hawaiian Islands National Wildlife Refuge. There is virtually no research funding in this area by the Federal government.

THE WALRUS (FAMILY ODOBENIDAE)

Together with many other marine mammals, the walrus suffered heavily from man's predation towards the end of the 19th century. There are indications that whalers turned to the walrus as the available whales decreased.

The principal use to which the walrus has been put recently has been as a source of food and of ivory. Alaskan natives still eat and feed walrus meat to their dogs, but the demand for this meat is dwindling as the arctic dog teams are displaced by snowmobiles. State law regulates to some extent the taking of walrus by natives and trophy hunters.

Little is known of a factual nature as to the size of the herd. There may be as many as 100,000 in the Bering Sea, and there may be only half that, or less. There are indications that Russia is looking into the possibility of taking walruses in the Bering Sea (BSFW, "Wildlife Research—Problems, Programs, Progress, 1969, p. 76).

There is no international agreement in existence between this country and the U.S.S.R. governing the taking of walruses. A strong case can be made that this should be done, and soon, before resource utilization pressures build up. There does not appear to be any Federal Law on the taking of walruses, since the Alaska Statehood Act overrode an earlier Federal statute prohibiting the taking of walrus (55 Stat. 632).

THE SEA OTTER

The sea otter, as a species, was hunted almost to extinction by the end of the 19th century by a horde of unregulated fur hunters. In 1911 what remained of the population was given protection by Federal legislation, at least to the extent that it involved persons subject to U.S. jurisdiction. The Fur Seal Act of 1966 continued this regulation, as it affected animals beyond the three-mile limit; this regulation is not particularly significant since sea otters are rarely found in waters over 180 feet deep, which pretty well restricts them to territorial waters, except in the Aleutians, which are surrounded by relatively shallow water.

The sea otter is found primarily in Alaskan and Californian waters—the Californian population is classified as "rare" in Interior's "Redbook." The population size of the sea otters is not known; perhaps the most knowledgeable American scientist in the area is Karl Kenyon, who estimated in a 1969 publication (Interior Publication No. 68, "The Sea Otter in the Eastern Pacific Ocean," cited as "Kenyon") that "(a) general estimate of the world population, presuming that some populated areas have not been observed, is about 32,000 to 35,000 animals." (p. 200). The hunting and conservation group "fact sheet" indicates, without evidence, that the population has grown to "about 40 to 50 thousand animals."

This "fact sheet" also indicates a high rate of population growth for sea otters, and that they are "rapidly spreading into new areas." It concludes that "where populations are crowded the sea otter resource could easily be cropped . . ." There is now in existence an experimental program in Alaska, involving the killing of some 300 sea otters per year.

Pressure upon the sea otter is almost certain to increase. Kenyon describes a sale of skins in Seattle in 1968, at which the average price per recently taken skin was $280 each, and where some skins sold for $2300 apiece, (pp. 41, 42). Contrast this with an average sale price of fur seal of some $82 per skin and the nature of the demand becomes apparent. Kenyon also notes that the environmental deterioration of the sea otters' habitat will preclude their reoccupying areas in which they used to thrive, and indicates that acute pollution will affect their food supply (p. 281). For the sea otter this is a highly significant limiting factor, since they consume food in the amount of 25–30% of their body weight per day (Kenyon, p. 126).

The sea otter also suffers from man's activities in other ways: California fishermen claim that the sea otters are competing with them for abalone, and are known to kill them, in spite of their protected status under California law.

And then of course there are the people who shoot at anything that moves (Kenyon, p. 282). There is evidence, however, that the principal cause of the undisputed depletion of the abalone beds is, not sea otters, but too many fishermen harvesting a limited resource (Kenyon, p. 130).

The annual Federal budget for research on sea otters seems to hover around $18,500. The AEC Milrow and Cannikin programs have augmented this budget in recent years, since the center of the Alaskan sea otters seem to be in the area of Amchitka Island, where these nuclear "events" are taking place. We know of one $20,000 research project funded by the AEC, and there may be others.

POLAR BEAR

Of all the marine mammals covered by the bills before the Subcommittee, the polar bear (*Ursus maritimus*) is the only one which can be said to be hunted as a "game animal." Its only natural predator is man and other bears; it has been hunted for years by natives as a religious symbol and as a source of meat, and more recently, by natives and trophy-hunters, for its hide.

Five countries own land in which the polar bear is found today: Russia, the United States, Canada, Denmark and Norway. It is not believed to den in Alaska—the bears which are killed in this country are very likely Russian and Canadian in origin, although no one is certain. Similar uncertainties pervade most of the discussions of facts relating to the polar bear.

The size and composition of the polar bear population is not known. There is learned scientific discussion as to whether the polar bear is one general, circumpolar species, or whether there are two or more subspecies within the general classification. There is no agreement. The size of the population is thought to be between 10 and 20 thousand, which seems a fairly large margin of error.

The issue is complicated by a lawsuit presently pending in which Friends of Animals is seeking to have the Secretary of the Interior place the polar bear on the endangered species list. Interior has resisted, on the principal ground that the status of the bear is not yet known, it has placed the polar bear in the status of an animal with an undetermined status. This of course affords the bears no protection at all.

There have been at least three international conferences on the polar bear. The first of these was held in Fairbanks, Alaska in September 1965, and reached no conclusions other than general statements of concern. The Russian delegation attempted unsuccessfully to have a ban placed on the killing of bears, or barring that, a five-year moratorium until more facts were known. There is some evidence that the bears killed in the United States are principally Russian in origin, which may serve to explain the nature of their concern. "Why", they appear to be saying, "should we save the polar bear, and thereby forego a valuable source of income, simply to have the bears which we save shot by American trophy hunters?"

Subsequent conferences were held under the auspices of the International Union for the Conservation of Nature and Natural Resources (IUCN) in Morges, Switzerland, in 1968 and in 1970. A certain amount of research has been done by the countries affected, singly and in concert, and more information seems to be developing, although the basic questions appear to be as unresolved as they have ever been.

The Alaskan delegation at the 1965 meeting indicated their position that hunting of the polar bear should be allowed to continue, in part on the basis that the annual take of bears contributed some $450,000 to Alaska's economy. If problems were later to appear, and it were to be shown that bear stocks were being overexploited, then the U.S. delegation stated that regulations would be enacted to "limit the harvest within the annual recruitment."

In support of their contention that polar bear stocks were not in danger, they developed statistics to show that the bears being killed were from a "large reservoir of adult males", and were not getting smaller in size. Had this been the case, this might indicate that the hunters were cutting into the breeding stock and were in fact overexploiting the resource.

The picture has changed. The figures developed in Alaska from 1966 to 1969 and submitted at the 1970 IUCN conference showed that the average age of bears killed in Alaska declined from 7.7 years old in 1966 to six years old in 1969. This is, of course, not *conclusive* evidence, in the scientific sense, that the polar bear is in trouble, but it suggests strongly that U.S. practices should be closely and critically examined.

The Bureau of Sport Fisheries and Wildlife has taken the position since 1959 that additional regulations are necessary to prevent U.S. nationals from killing bears on the high seas, beyond the jurisdiction of the State of Alaska. There has also grown up a strong sentiment in hunting and non-hunting circles alike, that the hunting of polar bears by airplane should be terminated. For many years the Alaska Department of Fish and Game resisted these pressures; it has now indicated that it will eliminate the hunting of polar bears by aircraft for the hunting season of 1973 (and presumably thereafter) "not because we feel it is required to protect the species, but rather because of public sentiment on methods of hunting these animals". (Letter of July 27, 1971 from the Acting Director, Division of Game, to the Office of Endangered Species, Interior).

There are presently no Federal laws regulating the taking of polar bears—all such regulation is handled by the State of Alaska. In part the new regulations prohibiting the hunting of these animals by aircraft was adopted as a deliberate program to forestall the possibility of the imposition of Federal or international controls. The vast majority of bears killed in Alaska today are taken by this method, which typically involves the use of two airplanes, one to act as a "spotter", which then drives and herds the bear at top speed towards the other which has landed with its "hunter" aboard, who may then shoot the exhausted bear at his leisure. The State of Alaska has indicated that the disappearance of airborne hunters will mean the increasing use of hunting by dog-sled, possibly by boat, and (far more significantly) by snowmobile. This will certainly diminish the scope of the area which the hunter can cover, and will presumably lengthen his stay or restrict the number of bears killed (or both). Whether hunting by snowmobile is significantly more sporting than hunting by airplane remains to be seen.

The 1965 Alaska conference on the polar bear made the point that the principal threat to the polar bear arose from man's exploitation—that their habitat was "intact and relatively undisturbed by man". This is no longer the case. The scientists at the 1970 IUCN conference produced a release following that conference, which "noted the increasing economic development in the Arctic, and expressed general concern that serious ecological problems could arise as a result of oil spills, off-shore drilling and other economic activity." Observers have also noted that grizzly bears and polar bears are suffering from increased predation by man near the drilling and other camps that have sprung up in recent times—these men are known to go out and shoot bears just to relieve the monotony of Arctic life (New York Times, May 7, 1970).

An affidavit supplied to the Committee by the Department of the Interior, prepared in connection with the law suit already mentioned, appears to but does not, contradict these known facts. In describing the discussions as to whether the polar bear should or should not be classified as "endangered", the Department argues that "the perils of inimical factors represented by loss or change of habitat, over-exploitation, predation, competition or disease, singly or combined, did not jeopardize the species." This may or may not be true, but the operative word in that sentence is *species*—if there is only one circumpolar species, then one could freely wipe out every Alaskan polar bear without endangering that species, since the polar bear would continue to exist in other countries. The Department's statement does and cannot take account of the plight of the polar bear in other countries, in none of which except Russia is the polar bear given complete protection.

THE SEA COW (MANATEE, DUGONG)

The only remaining species of sea cows in U.S. waters is found in Florida. It is there protected by state law; it is also on the U.S. endangered species list, and completely protected within the boundaries of the Everglades National Park by Federal law and federal officials.

Manatees are shy by nature, and will not breed in captivity. There are indications that it has suffered from man's activities to a great extent; one species has disappeared within the last century (Steller's sea cow). The Florida species has been taken for meat, and possibly even for "sport." It is threatened by motorboat operation and by widescale use of herbicides, which destroy its food supply.

It is herbivorous; a recent article in the Washington Post by Claire Sterling points to the possible importance of the sea cow as a consumer of the water hyacinth, which has been a source of considerable anxiety and expense to water resource managers, who have found that the water hyacinth tends to proliferate in reservoirs, and to create massive ecological and esthetic problems (May 3, 1971). If the manatee survives, and if we are eventually successful at propagating it, we may ultimately find that its value to mankind is considerable.

QUESTIONS TO BE CONSIDERED ON MARINE MAMMAL BILLS

In considering the marine mammal legislation, the Committee will be looking into several specific questions, as these affect the marine mammals covered: cetaceans (including dolphins and porpoises), eared and earless seals, walruses, sea otters, polar bears and sea cows. These questions are:

1. What is the current status of species and important population stocks within these categories, i.e., are they growing, declining, or remaining constant?
2. What is happening to the environment upon which these animals depend?
3. What national laws and international treaties for management and protection of these animals are currently in existence? Are these adequate and are they likely to be adequate, if demands increase?
4. How much research time and money is available and currently devoted to these animals within and outside the U.S. government?
5. What are the current and reasonably foreseeable demands, both U.S. and international, upon these animals for food, clothing, display, research and/or sale of skins?

THE MARINE MAMMAL PROTECTION ACT OF 1971

The bill entitled "The Marine Mammal Protection Act of 1971" was drafted to provide comprehensive authority in the Secretary of the Interior to manage the taking of all marine mammals within the jurisdiction of the United States. The bill covers all marine mammals, including seals, whales, polar bears, walruses and other mammals which spend all or a good part of their lives at sea.

The bill creates an absolute prohibition upon the taking of these animals, but softens this by providing the Secretary of the Interior with authority to issue permits for the taking of marine mammals. Before doing so, he is required to make an annual determination of quotas to be taken, subject to review by the public and by an independent Marine Mammal Commission. Criminal and civil penalties are provided for violation of the law, as well as forfeiture of the animals.

There is an exception to the Act for Indians, Aleuts and Eskimos, who may take marine mammals within their cultural tradition, if not for sale or resale. The Secretary is encouraged to develop cooperative arrangements with the governors of coastal states to cover the taking of mammals within territorial waters. Japan and Canada, who are entitled to a proportion of the annual take from the Pribilof Islands, are offered their choice of a fixed number of skins or a dollar amount, computed with reference to earlier seasons.

The bill also establishes an independent three-man Marine Mammal Commission, charged with an overview of the entire program, and authorized to review and to report on the progress of activities under the Act on an annual basis. The Commission is to be assisted in its responsibilities by a committee of expert scientific advisors. The activities of the Commission, its scientific advisory committee and of the Secretary of the Interior are all to be matters open to public inspection and review.

THE OCEAN MAMMAL PROTECTION ACT OF 1971

The bill entitled the "Ocean Mammal Protection Act of 1971" declares a general policy that there should be, as soon as possible, a worldwide ban on the slaughter of all ocean mammals.

It creates an absolute ban on the killing of such animals by U.S. citizens, or U.S. vessels, or by anyone in U.S. waters, or the importation of the same. Indians, Aleuts and Eskimos are permitted to take such mammals for their own use, but not for sale, or under contract to a commercial operation. Zoos and scientists are permitted to take ocean mammals, under regulations prescribed by the Secretary of the Interior. Violators of the Act are subject to criminal penalties and forfeiture of equipment used by their operations.

The bill declares it to be the sense of the Congress that the existing International Convention for the Conservation of the North Pacific Fur Seals should be terminated at the stated termination date in 1975. In the interim, Japan and Canada would be entitled to cash payments or to nine thousand skins each, in lieu of their treaty entitlement. The bill also establishes a "Pribilof Seal Rookery", and authorizes the establishment of a Pribilof Islands Commission, to work on the problem of the Aleuts who would be put out of work, following enactment of the bill.

Mr. DINGELL. Our first witness this morning is Mr. Thomas L. Kimball, executive director, National Wildlife Federation, an old friend of the committee.

Mr. ROGERS. Mr. Chairman, if the chairman would permit, I would just like to say that unfortunately I have to chair a committee at 10 o'clock, so I cannot be here to hear all of the statements, but I will read them all.

I am very much interested in them, and particularly I am very much interested in porpoises, because I have noticed we have a problem developing there as well.

I think we do have a distinguished list of witnesses here and I regret that I cannot be here.

I want to make this statement, and I am most interested in the legislation.

Mr. DINGELL. Thank you, Mr. Rogers.

Mr. Kimball, we are happy to have you with us.

STATEMENT OF THOMAS L. KIMBALL, EXECUTIVE DIRECTOR, NATIONAL WILDLIFE FEDERATION

Mr. KIMBALL. Mr. Chairman, I might help you recoup some of this time, if I might have my statement inserted in full in the record at this point, and try to recapitulate it.

Mr. DINGELL. Without objection, so ordered.

(The full prepared statement of Mr. Kimball follows:)

STATEMENT OF THOMAS L. KIMBALL, ON BEHALF OF THE NATIONAL WILDLIFE FEDERATION

Mr. Chairman, I am Thomas L. Kimball, Executive Director of the National Wildlife Federation which has national headquarters at 1412 Sixteenth Street, N.W., here in Washington, D.C.

Ours is a private organization which seeks to attain conservation goals through educational means. The Federation has independent affiliates in all 50 States and the Virgin Islands. These affiliates, in turn, are composed of local groups and individuals who, when combined with associate members and other supporters of the National Wildlife Federation, number an estimated three million persons.

We appreciate the invitation and opportunity to make these comments.

The National Wildlife Federation does not support any legislation calling for complete protection by law of all ocean mammals. Since H.R. 6554 is completely unacceptable to the Federation, we will not comment on its specific content. Our opposition is based on the fact that not all ocean mammals need protection if we are to assume that the wildlife resource is to be managed for the use and benefit of man. It seems to me, Mr. Chairman, this Committee and then the Congress must determine whether or not it is in the overall public interest to manage, guide, or manipulate wildlife populations in general or marine mammals in particular in such a manner as to provide the public with the greatest possible variety of uses and benefits obtained from this valuable renewable resource. One alternative to management is to give total protection to all species by Federal law and in so doing preempt the professional wildlife scientists from applying his knowledge and judgments and otherwise exercising his dominion and stewardship over animal populations. The National Wildlife Federation is opposed to such an alternative preferring to support professional wildlife management whose ultimate objective is to maintain maximum variety and optimum numbers of wildlife for the many and varied uses of man—to observe, photograph, study, and to harvest the surplus for food and/or wearing apparel.

At this point, I want to make it perfectly clear that the National Wildlife Federation is not opposed to complete protection of wildlife as a proper management tool. However, and this is the key point, protection is simply one of several techniques used by the professional wildlife biologists. Harvesting of surplus wildlife populations is an equally important management tool if the continuing long-range well being of an animal population is the ultimate objective.

The point I am making, Mr. Chairman, is that any recommendation or decision concerning the proper handling of wildlife should be made within the framework of scientific management based upon factual research data and experience and on the restoratic . and maintenance of proper wildlife habitat—not on the basis of emotional, philosophical or moral judgments.

The Federation feels that it is absolutely vital to world wildlife populations that we continue management efforts, as crude as they may be, that are built up on a solid foundation of scientific knowledge about the status and needs of wildlife. If we have inefficient data we all should direct our efforts towards filling in those gaps in our body of knowledge. We need all management tools at our disposal including both protection and harvest to solve the complexities of contemporary wildlife management. To do otherwise, in this enlightened age, would be an abrogation of our responsibilities to the fish and fauna of the world. No matter how much we may desire it, we cannot return to pristine natural conditions of the Stone Age. Modern man, approximately five billion in number, has so disrupted our plant and ecological systems, poisoned and polluted the environment, that the only hope for much of the world's wildlife is for man to utilize his great powers of reason, science, technology and persuasion to overcome or minimize the adverse impact of his own instrustions into the plant and animal ecosystems.

The worst disservice we could perform to any form of wildlife would be to abandon the principle of sound management. Because man has so complicated and disrupted the animal habitats there is little semblance of the balance of nature. If populations are not kept at levels that are supported by adequate food supply and by living and breeding space of their natural habitat, they will die of starvation and disease as well as suffering a lack of procreation. In addition, the habitat must provide ample living space, not marginal subsistence, if healthy wildlife populations are to be maintained over extended periods of time. Recovery to a normal balanced population following a starvation dieoff is a slow, inhumane and unnecessary process. In our view, the methods employed in removing surplus populations whether carried out by individuals representing sporting or commercial interests should be left to regulation by professional wildlife management experts as long as control is exercised to protect the basic brood stocks and the harvest is carried out in the most humane manner.

I know that the record will clearly show that the National Wildlife Federation has always vigorously supported legislation designed to completely protect rare and endangered species. Also, the Federation endorses the existing legislation that provides Federal protection to certain species of birds. But again, the decisions that led to this legislation were made on a scientifically sound management basis.

And that is why, Mr. Chairman, the National Wildlife Federation can support H.R. 10420. While that bill contains—at least in our judgment—some deficiencies, it embraces the concept of resource management and sustained yield which is so vital to this issue. Accordingly, the Federation endorses H.R. 10420 subject to the following comments.

Section 2, Findings and Declaration, is a good statement. We especially endorse the thought contained in subsection (2) that species will be managed on a sustained yield basis. This point is pivotal to the entire bill. However, we feel that the statement would be more meaningful and less vulnerable to subjective interpretation if the word "optimum" were deleted from line 2, page 2.

Section 3, Definitions, appears to contain a loophole in (4) that could be exploited by commercial fishing interests. We recommend that everything following the word "Mammal" on line 8, page 3, be deleted from (4). Also, we recommend that the term "scientific wildlife management" be added as subsection (6) and defined substantially as expressed, in part, by Dr. Robert H. Giles, Jr., Associate Professor, Wildlife Management, Virginia Polytechnic Institute in his article entitled "Approach" in the 1969 edition of the book "Wildlife Management Techniques" published by the Wildlife Society. (The words in parentheses are additions of the National Wildlife Federation). "(Scientific) wildlife management is the science and art of changing the characteristics and interactions of habitats, wild animal populations, and man in order to achieve (a sustained yield) by means of the wildlife resource. (Techniques used to achieve the sustained yield include, but are not limited to, humane harvesting and protection.)"

Section 101, Prohibitions, is satisfactory in its general thrust. However, it seems that Section 103 should be included on line 20, page 3 as an exception. Otherwise the issuance of permits becomes meaningless.

Under Section 107, Exceptions, subsection (a)(2), page 12 needs to be reworded or deleted to insure that Alaskan Indians, Aleuts, and Eskimos are permitted to continue the sale of native craftwork made from products of ocean mammals not listed as rare or endangered. At the same time, Section 107(a) needs to specifically prohibit the sale of native fishing and hunting rights to safeguard against possible exploitation.

Section 108, International Program, should be revised to delete the word "protection" on lines 6–7, page 13 and substitute the phrase "scientific wildlife management including, but not limited to, protection and taking."

The National Wildlife Federation heartily endorses the thrust of Section 109, Cooperation with States. However, we recommend that the words "conservation and protection" on lines 14–15, page 13 be deleted and in their place the words "scientific wildlife management" be substituted.

Under Section 110, North Pacific Fur Seal Convention, it appears that subsection (2) prejudges the outcome of the review that the Secretary of Interior is directed to make earlier in Section 110 and concludes that nine thousand fur seal skins each for Japan and Canada will not exceed the bounds of sound management. This subsection needs rewording to eliminate what could be a continued over-commitment of fur seal skins.

The concept of a Marine Mammal Commission as outlined in Title II, Sections 201, 202, 204, 205, 206, and 207 of H.R. 10420 is acceptable to the Federation. However, we recommend that the direction of the Commission be changed to provide that the Commission in cooperation with the State Department seek to work out international agreements covering the scientific management of all marine mammals. Ideally, these agreements should be based on the same philosophy as that underlying the North Pacific Fur Seal Treaty. We feel that the Commission should first conduct research and fact finding studies and then determine and set limits for the taking and protection of all ocean mammals.

The addition of a "Committee of Scientific Advisors on Marine Mammals" as described in Section 203, constitutes, in our judgment, excessive bureaucratic layering which could accomplish little of a constructive nature. We recommend deletion of Section 203.

Mr. Chairman, that completes my specific comments on the contents of H.R. 10420. We feel that from the bill can emerge a piece of sound legislation that will accomplish the goals we all seek.

In conclusion, we would point out that the greatest danger to wildlife in the world today is that opposition to hunting or commercial harvest of surplus animals will be erroneously interpreted and accepted by the uninformed as "conservation". As long as hunting or harvest is conducted on a sound biological basis, "killing", as deplorable as it is to some, is not a *conservation* issue. It is a *philosophical* issue or a moral question that each person must decide for himself, and the National Wildlife Federation respects all philosophical viewpoints of individuals whatever they may be. While sincere people on both sides of the philosophical question of to hunt or not to hunt or to harvest surplus or provide total protection, are preoccupied with quarreling over the moral issues involved, wildlife's real enemies—greed, avarice, environmental degradation, and loss of suitable habitat—will continue to accelerate.

The National Wildlife Federation is supported by representatives of the hunter and protectionist alike. We hope that these wildlife enthusiasts of different philosophical persuasions will unite in the continuing fight to conserve and enlarge wildlife habitat and to preserve the natural environment, the real key to wildlife abundance, while respecting each others right to moral judgments.

Thank you for this opportunity to testify.

BACKGROUND INFORMATION—OCEAN MAMMALS

1. CURRENT STATUS (INCLUDING POPULATION)

a. General:

The marine mammals are a varied group of animals representing four orders of the class Mammalia; Cetacea (the whales, dolphins and porpoises); Carnivora (the sea otter); Pinnipedia (the seals, seal lions and walruses); and Sirenia (the dugongs and manatees). Most of the species are wide-ranging animals which travel extensively through international waters. Due to their extensive movements and distribution and their restriction to a marine environment, with many species breeding in the far north, research on this group has proven to be quite difficult. In recent years, however, there has been an intensification of research effort, with international cooperation in some cases, and man's knowledge of this group is now expanding.

Management needs of the marine mammals vary with the species concerned, as would be expected. In many cases, management is complicated by the animals extensive movements within international waters. With respect to these species, sound management, depends on international cooperation.

b. Fur seal:

The Pribilof Islands fur seal population is about 1.3 million which is near the number which produces the greatest yearly surplus. These seals are taken only on the Pribilof Islands under the direct supervision of the federal government. International treaty forbids the killing of fur seals on the high seas.

The seal is a commercially valuable animal. Its furs are prized for coats; the meat is consumed both by humans and by animals. The annual fur seal harvest on the Pribilof Islands is virtually the sole source of gainful work for the 600 Aleuts who live in its two communities.

The seal herd of the Pribilofs today is thriving, its number estimated at 1⅓ million animals. Its return from a dangerously low level of 200,000 in 1911 is a historic story in the annals of man's effort to conserve wildlife. (See Attach. 1).

c. Whales and other cetaceans:

Estimates of the population size of the commercially utilized species of whales indicate that the populations are low and that they are being taken at near or over the maximum sustainable level, mainly by countries other than the United States. Those previously utilized and which are now fully protected as endangered species are, of course, also at a low level. However, the federal government through the Departments of the Interior and Commerce has prohibited after December 1971, both the importing of products from whales and the taking of them by U.S. citizens. This is the ultimate unilateral protection possible by this nation. Additional protection must come from other countries.

Other cetaceans such as the dolphins, porpoises, killer whales, and belugas appear to be at about the optimum population size. They are little utilized by U.S. citizens. Small numbers are being taken mainly for live display in aquariums or research purposes. A few beluga and bowhead whales are taken for local use by the Eskimos in Alaska.

The approximate world population of whales, but based in some cases on limited data, are as follows:

Blue, 8,000; Fin, 100,000; Sei, 120,000; Humpback, 4,000; Right, 2,000; Bowhead, 1,000; Gray, 11,000; Sperm, several hundred thousand; Killer, 10,000.

The population size of dolphins and porpoises is not known but probably ranges from 10,000 to 1,000,000 for most species.

d. Elephant seal and sea lion:

The northern elephant seal is thought to number about 20,000 while the California sea lion population is about 50,000. Neither of these species is utilized except for the capture of a few sea lions for zoos and aquariums. The Steller sea lion numbers about 500,000 of which about 5,000 a year are taken by natives in Alaska for food and the hides. Sea lions are resident species under state jurisdiction.

e. Hair seals:

Pacific hair seal populations which include the ribbon, ringed, bearded, and harbor seal appear to have stable populations with the exception of the ribbon seal which has decreased in number through excessive kills by the seal fleet of the U.S.S.R. in the Chukchi Sea. Population estimates for these seals are: bearded—30,000, ringed—250,000, ribbon—150,000 harbor—200,000. It is estimated that about 25,000–30,000 hair seals are taken annually in Alaska for food and clothing and sale of pelts primarily by Eskimos, Indians, and Aleuts.

f. Sea otters:

In the early days of this century the sea otter population had been reduced by exploitation to scattered remnants (a few hundred) at a number of different islands. Under a policy of complete protection which began in 1911, the population spread and is today in a phase of rapid growth. Studies by the U.S. Fish and Wildlife Service in the 1950's and early 1960's showed that at that time they had increased to at least 25 to 30 thousand animals and were rapidly spreading into new areas. Aerial surveys have been continued by the State of Alaska, and today it is estimated that the population has grown to about 40 to 50 thousand animals. The rate of population growth in uncrowded areas as at least 10 percent per year. In crowded populations there is approximately a 4 percent rate of increase and at islands where the populations exceed carrying capacity of the habitat (i.e. more than 10 to 15 otters per suarqe mile of habitat) a population decrease has been observed. Scientists believe that stress mortality such as starvation, as well as emigration accounts for the declining populations in such cases. The annual rate of reproduction is about 14 percent. Modern population surveys are in accordance with these findings. For additional information on the Sea Otter see Attach. 2.

g. Walrus:

While it is impossible to make any firm estimate of warlus numbers because they are widely scattered, aerial surveys indicate that there are at least 60 to 100 thousand in the Bering Sea population. Walrus are not yet overpopulated, but present evidence indicates that the populations are growing and that the walrus are repopulating areas from which they were extirpated.

The Pacific walrus population occurs in international waters and in territorial waters of the U.S. and the U.S.S.R. There are an estimated 25,000 Atlantic walruses found principally in the East Arctic Atlantic. The Atlantic walrus is not found in territorial waters of the U.S. For additional information see Attach. 3.

h. Hawaiian monk seal:

Monk seals are the only tropical-water seals in the world. In the 1,000 mile-long chain of Pacific Islands on which it breeds (Kure Island to French-Frigate Shoals) the species was reduced by commercial exploitation in the mid-19th century to a very low level. The present population is not more than 1,50 animals. Since 1, when the Hawaiian Islands National Wildlife Refuge was created, the monk seal has been afforded protection by the Federal Government. The monk seal today breeds on only four islands; all within the confines of the refuge.

There are indications that the monk seal populations on the refuge are declining. Attrition by shark bite is quite high and this species will not tolerate human disturbance. Therefore, management consists of complete protection for this species, even to the exclusion of disturbances from visitors. The population is visited only about twice a year to determine current status. This species is presently classified as rare by the U.S. Department of the Interior.

i. Polar bear:

The distribution of the polar bear is circumpolar and coincides with the Arctic ice pack. This ice pack is in constant motion, circulating with the ocean currents and it is presumed that this motion affects movements of the bears. Due to the adverse climatic conditions present within the range of this species, research has been lacking. There has, however, been an intensification of investigations on this species in recent years.

A cooperative study of polar bears currently is being conducted by Canada, Denmark, Norway, the U.S.S.R. and the United States. This study was initiated following an international meeting held in Fairbanks, Alaska in 1965. Since then two working group meetings were held in Morges, Switzerland. Areas of needed research were outlined, agreements were reached on standardizing research methods and procedures and certain research problems assigned to individual specialists in attendance.

A review of harvest data reported by the involved countries indicates the arctic-wide harvest of bears is now at least 1,250 annually. In 1969, the harvest by country included 128 for Greenland, 346 for Norway, 406 for Canada, 298 for the United States and a few for the U.S.S.R.. The harvest in Alaska is controlled by that State which restricts the number of permits issued to 300. It is illegal to harvest females with cubs. For additional information see Attach. 4.

2. STATUS OF ENVIRONMENT UPON WHICH OCEAN MAMMALS DEPEND

At best, the environment remains basically unchanged (true, to date, for the polar bear). However, for most ocean mammals there has been a general, slow decline in the environment as the result of oil spills, ocean dumping, and the introduction of heavy metals and other forms of polluted stream runoff into ocean waters. Such migratory mammals as the fur seal are affected adversely by this.

3. LAWS AND TREATIES

a. Fur seal:

The open sea killing was halted by international agreement in 1911, when the United States, Great Britain, Japan, and Russia concluded a convention (North Pacific Fur Seal Convention) for the protection of the North Pacific fur seal. In exchange for the ban on pelagic sealing, the United States and the Soviet Union, under the agreement, provide Japan and Canada each with 15 percent of the harvest from the Pribilofs and 15 percent of the harvest from those islands under jurisdiction of the Soviet Union.

In addition to the conservation of the seal herd made possible by this agreement, there is now an economic gain for the State of Alaska, which by the Alaska Statehood Act obtains 70 percent of the net proceeds from the sale of Alaska sealskins.

The majority of sealskins are presently utilized by the European market. A ban placed on the importation of seal pelts into the United States would have little, if any, effect on world seal harvests.

In the United States, the Fur Seal Act of 1966 charged the Secretary of the Interior with management of the fur seals. This responsibility was transferred to the Secretary of Commerce on Oct. 3, 1970. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service supervises the harvest of an average 50,000 fur seals each summer on the Pribilof Islands.

The Fur Seal Act of 1966 prohibits the taking of fur seals in the North Pacific Ocean and all lands and territorial waters of the United States. An exception is made for Alaskan natives, Aleuts, and Eskimos.

There are now seal rookeries under U.S. jurisdiction on Alaska's Pribilof Islands of St. Paul and St. George in the Bering Sea, on Robben Island, and on the Kurile Islands in the Sea of Okhotsk, under U.S.S.R. jurisdiction. There is substantial intermixing between the herds of the eastern and western Pacific Ocean.

b. Whales and other cetaceans:

Estimates of the population size of the commercially utilized species of whales indicate that the populations are low and that they are being taken at near or over the maximum sustainable level, mainly by countries other than the United States. Those previously utilized and which are now fully protected as endangered species are, of course, also at a low level. However, the federal government through the Departments of the Interior and Commerce has prohibited after December 1971, both the importing of products from whales and the taking of them by U.S. citizens. This is the ultimate unilateral protection possible by this nation. Additional protection must come from other countries.

The U.S. continues to hold membership in the International Whaling Commission (14 member nations) which has not been too successful.

All member nations of IWC have agreed to ban killing of Blue, Humpback, Right, and Gray whales. However, only the U.S. has agreed to stop taking the Sperm, Sei, and Fin whales, effective December 1971.

c. Sea otter:

Complete protection is given to sea otters where their populations are below the carrying capacity of the habitat and population growth can be expected.

Covered by 1940 Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.

Fur Seal Act of 1966 provides against taking sea otter in high seas by any person subject to U.S. jurisdiction.

d. Walrus:

The Pacific walrus population occurs in international waters and in territorial waters of the United States and the U.S.S.R. Proper management and regulation of the harvest of this species, therefore, is dependent on international cooperation. At present there is no international agreement governing harvest of walrus.

e. Hawaiian monk seal:

The present population is not more than 1,500 animals. Since 1909, when the Hawaiian Islands National Wildlife Refuge was created, the monk seal has been afforded protection by the federal government. The monk seal today breeds on only four islands; all within the confines of the refuge.

f. Polar bear:

A cooperative study of polar bears currently is being conducted by Canada, Denmark, Norway, the U.S.S.R. and the United States. This study was initiated following an international meeting held in Fairbanks, Alaska in 1965. Since then two working group meetings were held in Morges, Switzerland. Areas of needed research were outlined, agreements were reached on standardizing research methods and procedures and certain research problems assigned to individual specialists in attendance.

g. Manatee:

The manatee is given complete protection as an endangered species by both state and federal governments.

4. RESEARCH TIME AND MONEY

a. Fur seal:

Current: $300,000/yr., 12 man years.
Required: (see *b* below).

b. Whales and other cetaceans:

Current: $100,000/yr., 3 man years.
Required: $3 million required for a coordinated national effort on fur seal and whale research.

c. Elephant seal and sea lion:

Current: $6,000/yr. (Total expended in a 74–25 Federal Aid Program.)
Required: Same.

d. Hair seals: None.

e. Sea otter:

Current: Approximately $90,000/yr., 2½ man years. (Includes $25,000 in Federal Aid Program and $6,375 in Oregon program.)
Required: $140,000/yr.

f. Walrus:

Current: $20,000/yr. (includes $16,000 in Federal Aid), 1 man year.
Required: $60,000, additional 1 man year.

g. Hawaiian monk seal:

Current: $3,000/yr., 1 man year.
Required: Same.

h. Polar bear:

Current: $120,000/yr. (includes $40,000 in Federal Aid), 1 man year.
Required: $240,000/yr. 2 man years.

i. Manatee: Endangered—no research.

5. CURRENT AND FORESEEABLE DEMANDS

It appears that demands, both U.S. and international, in all categories (i.e. food, clothing, display, research, and sale of skins) will increase due to the increasing world population and increasing interest in furs, zoos, etc.

HISTORY OF FUR SEAL

In the 18th century, the seals' rich fur made them targets of intensive hunting in the Northern Hemisphere.

The Russians discovered the Pribilof Islands in 1786. In the ensuing years Russian hunters reportedly took 2.5 million seal pelts. Initially, harvesting was uncontrolled, breeding females were unprotected in the Pribilof, herds were reduced to remnants. In 1834, when the seals had been almost annihilated, the Russians stopped killing females and the herd began to increase. By 1867, when the U.S. purchased Alaska, (including the Pribilofs) the Pribilof herd had recovered to the point that it sustained an annual harvest of 100,000 males for many years.

The United States began its jurisdiction by permitting a number of independent companies to operate. In the first season 300,000 skins were taken. To protect the fur seals, Congress in 1869 set aside the Pribilofs as a special reservation. During the next 20 years, sealing on the Pribilofs was conducted under a leasing arrangement, with some 2 million sealskins taken. A second 20-year lease produced only 343,000 skins, and in 1910 the Federal Government assumed direct management of the approximately 200,000 fur seals that survived.

During this 40-year period, killing at sea had continued. American, Canadian, and Japanese sealers had shot and speared fur seals from ships. They could not tell the sex or age of the animals, many of which were lost through wounding or sinking. When a nursing mother was killed it often meant slow starvation for her pup.

For 1879 to 1909, almost one million fur seals were taken at sea. No one knows how many more were wasted.

The open seal killing was halted by international agreement in 1911, when the United States, Great Britain, Japan, and Russia concluded a convention for the protection of the North Pacific fur seal. In exchange for the ban on pelagic sealing, the United States and the Soviet Union, under the agreement, provide Japan and Canada each with 15 percent of the harvest from the Pribilofs and 15 percent of the harvest from those islands under jurisdiction of the Soviet Union.

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There are seal rookeries under U.S. jurisdiction on Alaska's Pribilof Islands of St. Paul and St. George in the Bering Sea on Robben Island, and on the Kurile Islands in the Sea of Okhotsk. There is substantial intermixing between the herds of the eastern and western Pacific Ocean.

The harvest is restricted largely to 3- and 4-year old bachelor males that congregate on the edges of the rookeries. Baby seals, or pups, are not harvested. Females are taken only when it is necessary to keep the number of animals at the most productive level the Pribilof environment can support. Overcrowding brings higher mortality among the pups. The battle for living space causes injuries and leads to disease and starvation. Such mortality, in the past, has taken up to 20% of the pups before they are sufficiently mature to leave the rookeries.

One concern has been the length of the paths along which seals are driven from the shore to the harvest. To reduce discomfort, the drive paths have been shortened by approximately one-half. Experiments are planned with other ground cover to determine whether the drive can be further improved.

Seals are harvested with clubs. They are dispatched quickly with a blow to the head.

For several years, the Fisheries Service has been experimenting with alternative methods including drugs, gases, electricity, shooting, and others to dispatch seals. At this point, despite extensive effort, none has been found which accomplishes the task as quickly and as humanely. The Service's position is that it cannot cause increased suffering, and introduce an element of danger to the men employed in the harvest, simply to provide a cosmetic death. Meanwhile, the quest for a more humane method will be vigorously pursued.

The Service has cooperated closely with representatives of humane societies who observe the seal harvest annually. It will continue the cooperation. Further, the cooperation of the American Veterinary Medical Association's Research Committee is being sought in the Service's continuing search for the most humane way in which to conduct the harvest.

Should the fur seal harvest continue? When the alternatives are considered, the answer must be affirmative.

Should the present management scheme be unilaterally halted by the United States, other nations would, in all probability, resume the harvest at sea, a wasteful and inhumane process.

If the Pribolof fur seal herd is not managed properly and excess numbers removed, many will succumb to other environmental controls such as parasites, diseases, and physical injury magnified by overcrowded conditions. Their illnesses and deaths, in many cases would be lingering, with pups suffering the greatest losses. It is a rare occasion when "natural" mortality is as humane as current harvest methods.

If proper management harvests are stopped, the single source of employment for the Aleut population in its ancestral home would disappear, with nothing in view to replace it.

As the harvest continues, with its operation under constant review within and outside of the government, the Pribilof fur seal herd will be kept at a level of high, productive abundance, and the resource which has been saved by careful conservation methods will be preserved for the future.

Management of the Sea Otter

Present indications are that where populations are crowded the sea otter resource could easily be cropped to the benefits of the habitat and the health of the population. Present management in Alaska is attempting to determine whether this is actually the case. This management program consists, basically of three approaches:

1. Experimental harvests being conducted at Amchitka Island. This population has exceeded the carrying capacity of the habitat and has suffered large juvenile and aged adult die-offs. Approximately 300 otters have been harvested annually since 1965 in an attempt to determine the level of harvest that will benefit the population. All harvesting is done by game biologists and only single, adult otters are taken. No females are harvested. To date there has been no observable decline in those populations subjected to annual harvest.
2. Transplants of live otters have been made in southeastern Alaska, Washington, Oregon, and British Columbia in areas having suitable habitat but presently lacking otter populations. There is evidence that some of the transplants in southeastern Alaska are being successful; pups have been seen in these areas where otters previously were not seen. Also, otters are still observed on the Washington coast a considerable period of time after release. More time is needed to fully evaluate the success of these attempts, however. Further transplants are planned as these attempts have the double benefit of reducing population pressure in the crowded areas from which the animals are taken and offering the potential for re-establishment of the sea otter in areas from which it had been extirpated. Natural spread of the otter over its former range would take a very long time as this species does not emigrate to new areas until placed under considerable population pressure and natural mortality is occurring. Even then, natural dispersion is slow and limited.
3. Complete protection is given to sea otters where their populations are below the carrying capacity of the habitat and population growth can be expected.

Management of the sea otter, at present, is under state jurisdiction, except where the otters occur on land within a federal refuge or where they occur on high seas outside the 3-mile limit. The sea otter now occurs on the California coast off Monterey, possibly in the transplant areas off Washington, Oregon and British Columbia, and primarily along the southern coast of Alaska, the Aleutian Islands, Medny Island, Kamchatka, and certain Kuril Islands, the latter three locations being under the jurisdiction of the Soviet Union.

History and Management of the Walrus

By the end of the 19th century, the walrus population was greatly reduced. This reduction was due to the fact that whalers, after reducing northern whale populations (the bowhead in particular), turned to walrus hunting, using Eskimo laborers and guides. When the populations of walrus became greatly reduced, around the turn of the century, commercial hunting of walrus ceased. The harvest of walrus today consists of those taken by natives for food and ivory and those taken by trophy hunters. It is estimated that 2 to 3 thousand walrus have been taken annually by the natives; actually fewer are being taken every year. In 1970, the United States native harvest amounted to $1,304 and an additional 23 walrus were taken as trophies; of these 850 were adult males, 374 were adult females and 103 were calves. The walrus also is under state jurisdiction. Alaska now limits the harvest by natives dependent on walrus for food to 5 adult females or subadults of either sex per season. There is no limit on adult males, and orphaned calves may be taken without contributing to the bag.

The decline in numbers of walrus harvested by natives is primarily the result of two factors. The natives are moving into larger towns, such as Nome, and few return to hunt walrus. This trend will probably continue. In addition, nonnatives are now permitted to take one adult male (trophy) by purchasing a $100 permit. Trophy hunters must be taken out by teams of native guides and the natives may not harvest walrus while accompanying trophy hunters. These teams, if harvesting walrus on their own rather than accompanying trophy hunters, might kill more than 100 male walrus per day. The trophy hunter will pay at least $2,000 for the services of these natives. Thus, trophy hunting has multiple benefits; it reduces the annual harvest of walrus and at the same time permits economic utilization of the walrus resource by the native population.

Management of the walrus in Alaska has consisted of the following measures:

1. The only major hauling ground regularly used by walrus in Alaska, Round Island of the Walrus Islands in northern Bristol Bay, has been designated as a refuge and complete protection is provided there.

2. The annual harvest of walrus is controlled and the regulations governing the harvest favor the taking of adult males. Since the walrus is polygamous, taking of adult males, within limits, is not detrimental to the population.

MANAGEMENT OF THE POLAR BEAR

Hunting parties originating in Alaska are required to submit all skins and skulls of polar bears to the Game Commission so that age data may be obtained. Data from bears harvested in Alaska show that the averge age of males has been declining since 1966. This means that younger and smaller bears are being taken, but not necessarily that the population has been harmed. The survival of young bears is thought to be enhanced by the removal of older males since they are known to be canibalistic. Consideration should be given to reducing the kill, however, in order to maintain a better balanced age ratio.

Management of the polar bear is complicated by the fact that five nations have direct interest in this species. Individual bears range extensively over the arctic and it is not known whether any nation has truly a resident population of polar bears. Any management program, to be successful, must be based on international cooperation between the nations concerned.

Mr. KIMBALL. Mr. Chairman, the National Wildlife Federation does not support any legislation calling for the complete protection of all ocean mammals.

Since H.R. 6554 is completely unacceptable to the Federation, we will not comment on its specific content.

Our opposition is based on the fact that not all of the ocean mammals, but certainly some, do need protection.

If we are to assume that the wildlife resource is to be managed for the use and benefit of man, it seems to me, Mr. Chairman, that this committee and then the Congress must first determine whether or not it is in the overall public interest to manage, guide, or manipulate wildlife populations in general, or in this case marine mammals in particular, in such a manner or as to provide the public with the greatest possible variety of uses and benefits obtained from this valuable resource.

One alternative to management is to give total protection to all species by Federal law.

In so doing, you will preempt the professional wildlife scientist from applying his knowledge and judgments and otherwise exercising his dominion and stewardship over animal populations.

The National Wildlife Federation is opposed to such an alternative, preferring to support professional wildlife management whose ultimate objective is to maintain maximum variety and optimum numbers of wildlife for the many and varied uses of man, to observe, to photograph, to study, and to harvest these surplus for food or for wearing apparel.

At this point, I want to make it perfectly clear the federation is not opposed to complete protection of wildlife as a program management tool.

However, and this is the key point, protection is simply one of the several techniques used by the professional wildlife biologists.

Harvesting of surplus wildlife population is an equally important management tool if the continuing long-range well-being of an animal population is the ultimate objective.

The point I am making, Mr. Chairman, is that any recommendation or decision concerning the proper handling of wildlife should be made within the framework of scientific management based upon factual research data and experience, and on the restoration and maintenance of proper wildlife habitat, not on the basis of emotional, philosophical or moral judgments.

The federation feels it is absolutely vital to world wildlife population that we continue management efforts, crude as they may be, that are built upon a solid foundation of scientific knowledge about the status and needs of wildlife.

If we have insufficient data, and you touched upon this in your testimony, Mr. Chairman, and I do think that we have inadequate data, we should direct our efforts toward filling in those gaps in our body of knowledge.

We need all of the management tools at our disposal, including both protection and harvesting to solve the complexities of contemporary wildlife management.

To do otherwise in this enlightened age would be an abrogation of our responsibilities to the fish and fauna of the world.

No matter how much we desire it, we cannot return to the pristine conditions of the stone age.

Modern man, 5 billion in number, has so disrupted our planet and ecology, poisoned and polluted the environment, that the only hope for much of the world's wildlife is for man to utilize his great powers of reason, science, technology, and persuasion to overcome or minimize the inverse impact of his own intrusions into the plant and animal ecosystems.

The worst disservice we could perform to any form of wildlife would be to abandon the principle of sound management. Because man has so complicated and disrupted the animal habitat, there is little semblance in the balance of nature.

If populations are not kept at levels supported by adequate food supply, living and breathing space, many will die of starvation and disease, plus suffering the lack of procreation.

Recovery to a normal balanced population following a starvation die-off is a slow, inhumane, and unnecessary process.

In our view, the methods employed in removing surplus populations, whether carried out by individuals representing sporting or commercial interests, should be left to regulation by professional wildlife management experts as long as control is exercised to protect the basic broodstocks and the harvest is carried out in the most humane manner.

I think, Mr. Chairman, the committee will hear probably considerable testimony about the methods employed to take these mammals, and we would like to go on record as saying that if any method used is inhumane, we would certainly seek to develop, through the proper research and investigation, the most humane methods of harvesting the surplus.

I know that the record will clearly show that the National Wildlife Federation has always vigorously supported legislation designed to completely protect rare and endangered species.

There are many of them in the marine mammal category.

Also, the federation endorses the existing legislation that provides Federal protection to certain species of birds, but again, the decisions that led to this legislation were made on a scientifically sound management basis.

That is why, Mr. Chairman, we support H.R. 10420, and while the bill contains at least, in our judgment, some deficiencies, it embraces the concept of resource management and sustained yield which is so critical to this issue.

In that connection, Mr. Chairman, we have made several suggestions. I would be happy to come back and go over these in detail if you would care to, or utilize the time in acknowledging or answering any questions concerning our specific recommendations to this particular bill.

Thank you.

Mr. Dingell. The Chair will observe that I have noted with care the suggestions you made which appear in your excellent statement and that the Chair is going to direct the staff to consider these in the markup of any legislation.

Mr. Kimball. Fine. In conclusion, we would point out, Mr. Chairman, that the greatest danger to wildlife in the world today is that the opposition to hunting or commercial harvesting of surplus animals will be erroneously interpreted and accepted by the uninformed as conservation.

As long as hunting and harvesting is conducted on a sound biological basis, "killing," as deplorable as it is to some, is not a conservation issue.

It is a philosophical issue or a moral question that each person must decide for himself, and the federation respects all of these philosophical viewpoints of the individuals, whatever they may be, as most certainly no one would be able to change them.

While sincere people on both sides of the philosophical question of to hunt or not to hunt, or to harvest surplus or to provide total protection are preoccupied with quarreling over the moral issues involved, wildlife's real enemies—greed, avarice, environmental degradation, and the loss of suitable habitat will continue to accelerate.

The National Wildlife Federation is supported by representatives of both of these groups, both the hunter and the protectionist alike, and we hope these wildlife enthusiasts of different philosophical persuasions will unite in the continuing fight to conserve and enlarge the wildlife habitat and to preserve the natural environmental while respecting each other's rights to moral judgments.

Thank you again, Mr. Chairman.

Mr. Dingell. Mr. Kimball, the Chair wishes to commend you for a very helpful and enlightening and valuable statement.

We are appreciative of your assistance to this committee.

Are there questions?

Mr. Anderson. Mr. Kimball, I just want to say that I wish to commend you for your very fine statement, and particularly to thank you for your offer of support to the bill that I have introduced, H.R. 10420.

We are aware that there are some deficiencies in it, perhaps, and we will take the suggestion that you make, and go through them point by point, because we do not consider it as a finished bill right as of now. It has some answers, and perhaps it is a step in the right direction.

Thank you for your comments.

Mr. Kimball. Mr. Anderson, one of the suggestions I would like to make is that the legislation address itself to the international problem.

Marine mammals are creatures of the open sea, and as such, the jurisdiction over their taking and use and management is between many nations.

This is one of the real problems of protecting these particular mammals, and hopefully, the efforts of the United States could be directed toward developing some type of international agreement on the management of these species.

It would be based again upon factual research data. If we could pattern it somewhat after the Pribilof seals where nations have agreed upon the harvest of only the surplus, and it is done at a particular time and season so that the basic broodstocks are protected, this could be applied to the other endangered marine mammals. This would be the thrust of the U.S. effort to really help these particular mammals.

Mr. Anderson. I noticed you had eight or 10 suggestions. Are they in written form.

Mr. Kimball. Yes, they are.

Mr. Anderson. They are covered in your statement?

Mr. Kimball. Yes.

Mr. Anderson. Thank you very much.

Mr. Dingell. Any further questions?

Thank you again, Mr. Kimball.

Our next witness is Mr. Cleveland Amory, president, the Fund for Animals, New York City.

STATEMENT OF CLEVELAND AMORY, PRESIDENT, THE FUND FOR ANIMALS, NEW YORK CITY

Mr. Amory. Thank you, Mr. Dingell.

Mr. Chairman, members of the committee, my name is Cleveland Amory. I am president of the Fund for Animals, a national anticruelty society with offices at 140 West 57th Street, in New York, and I am here to testify for the Harris-Pryor Bill, H.R. 6558.

There is one particular area of the matter that concerns us this morning to which I would like to address myself, if you will so permit. And that is how the public feels. I have had unusual opportunity to learn how it feels from three directions—first, from the letters I receive from the magazines I write for; second, from the letters I receive from talks I have made on various radio and television shows; and third, at the grassroots level, by actually talking with people in more than 40 American cities so far this year.

The organization of which I am president presently shares, with other major conservation organizations such as the National Audubon

Society, the Sierra Club, the Nature Conservancy, et cetera, a joint exhibit called the National Panorama for Conservation Action.

Starting in Arizona, this huge panorama, more than 30 yards in length, has traveled from mall to mall across the length and breadth of this land, across Texas, into Florida, up the southern coast, through New England, and now back into the Midwest, heading towards its close in California. This week the exhibit is in Omaha, Nebr. Last week it was in Lincoln, Nebr.

I assure you, Mr. Chairman, there are not many ocean mammals in Lincoln, Nebr., nor in Omaha. But I also assure you, Mr. Chairman, that the people there care about ocean mammals. To our exhibit, for example, came thousands of schoolchildren.

One of them pointed to our seal pictures. They show first the clubbing of the baby seals in Canada, then the clubbing of the adult seals in Alaska. Underneath is written, "Our country, too, clubs seals."

One child, who could not have been more than 11 or 12 years old looked at the exhibit for a long time. His face clouded. Then, suddenly, there was hope in it. "My goodness," he said. "Mr. Amory, cannot you stop it? Through TV Guide?"

Seriously, Mr. Chairman, let us thank God that that child had not yet grown up, that he did not yet know of man's infinite capacity to rationalize his own cruelty.

Mr. Chairman, I have found in my mail, in my travels, and in person something I am sure you gentlemen have found far more, and far more accurately, than I have—something I dare say was directly responsible for these hearings, and this is something which I can only describe as a new wind blowing through our land.

Only a few short years go, a very small number of people would have been at all concerned with what concerns us here today. Only a few voices were then raised against any animal abuses, pathetically few for abuses seemingly as far removed as those concerned with ocean mammals. But now those few voices have grown into an army. And it is a new kind of army—the army of the kind.

Two years ago the Fund for Animals started something off the west coast of California called the Wildlife Protection Patrol—the country's first coast guard for animals, to prevent the ravishing and cruel abuse of sea mammals by so-called sportsmen and others.

The Wildlife Protection Patrol, Mr. Chairman, had only one power—moral power. But that moral power has, time and time again, proved far more powerful than power power. And something else was proved by the Wildlife Protection Patrol—that, as our friends on the beaches of California learned more and more about our fellow creatures of the deep, an extraordinary bond was created. Mr. Chairman, the true horror of what we are talking about today is that some of these mammals are going to be extinct before we even have learned anything about them.

Let me give you just one interesting case—the experiments of Dr. John Lilly with the dolphin. Dr. Lilly found that, in some cases, the bond between his researchers and dolphin became so deep that when the researchers were reassigned, or when it became clear to the dolphins that, no matter how hard they tried, they were not going to be able to establish real communication, the dolphins first appeared distressed and then, in some cases, they died. In fact, they literally committed suicide. Dr. Lilly then gave up his experiments.

But an even more important point may be at issue here. We are, after all, not just talking about extinction and endangered species here. The voice of the new army to which I have referred is loud and clear on this subject. It does not matter how many of an animal or sea mammal there is. What really matters is the total immorality and senselessness of taking any such creatures for such a frivolous purpose. For that great and noble creature, the whale, from which we get not one single product which could not be better gotten elsewhere, man has reserved one of the cruelest deaths of all. That tiny, inoffenive creature, the baby seal, man chooses to club. And for what? Not even for a fur coat—for a fur lining.

Mr. Chairman, I have stood in 30-degree-below-zero weather on an ice floe off the Magdalen Islands, in a 50-mile-an-hour wind. It was a wild, eerie scene, of quiet and white nothingness. A winter wonderland so beautiful that the beauty, let alone the cold, took your breath away.

The only inhabitants of that ice floe, and indeed of all the other ice floes for miles and miles around, were thousands upon thousands of seals. Two by two they were—a beautiful, gray-coated mother beside her unbelievably appealing pup; a fat, fluffy ball of solid whiteness out of which appeared three somber black blobs, two of them eyes, trusting and friendly, the third an inquisitive snout.

The age of the pup? Six days. And then the men from the sealing ships advanced. At the last moment a baby seal moved toward them. He seemed to think the first human being he had ever seen come close to him was something to play with, and in friendly, curious fashion, he wiggled forward—waggling, since he had no tail, his whole backside.

Mr. Chairman, all that remains of him now is the lining of your glove, or perhaps of your jacket, or even your billfold. And all of this, of course, could be better made of something else.

May I say in closing that the animal army of which I speak is today such an overwhelming majority that I venture to say you cannot find a single soul in this hall, in this building, in the streets below, or in the entire country, who does not want to do something about whales, about seals, and sea lions, unless, and I repeat, unless, it is someone with a vested interest in their persecution.

And that, Mr. Chairman, is my final point here. Up until now, the U.S. Government has had a vested interest in this persecution, in one of the cruelest businesses on the face of the earth, the clubbing of seals. Sir, it must divest itself of this vested interest. It must divest itself, wash the blood from its hands, and stand in fair and new and fresh and decent judgment.

Mr. Chairman, we ask of our Government in this matter, as so many people are asking in so many other matters, that it be not on the side of the angles, but on the side of the angels. The Government has two arguments. It says it has to kill seals because of a treaty. That is one argument. The other is that it has to kill seals because it is good conservation.

Mr. Chairman, I am always suspicious of someone who has two arguments. If one of the arguments was really good, why would two be necessary? Not long ago I asked an official in the Bureau of Commerical Fisheries if the seal killing would go on for conservation reasons if there were no end product involved. He looked shocked. "Why no," he said, "not if nobody makes a profit."

Last summer I sent to the Pribilof Islands a young lady named Margery Stockton, and asked her to write a report for me. She wrote:

> I am truly sick that my Government makes $5 million each season from the killing of seals. From the beginning, when the Aleuts beat on empty 5-gallon tins to awaken the seals who were asleep in their rookery which the Department of the Interior calls a "sanctuary" to the bitter end when, already exhausted by a lung-bursting overland journey, they are bludgeoned to death, making last, feeble attempts to help each other, it is a barbaric, brutal business. And when one sees 1,000 to 1,500 seals bludgeoned to death per day, the words "sanctuary" and "conservation" become a mockery.

Mr. Chairman, let us have an end to this mockery. Let us report out of this committee H.R. 6558 and send out a clarion call not only to our fellow citizens in this country, but to all the nations on this earth that this country will have no more of this bloody business, this exercise in hypocrisy, this traffic in torture.

Mr. Dingell. The committee is grateful to you for a very powerful and helpful statement.

Any questions of Mr. Amory?

Mr. Amory, we are grateful to you and thank you for your very helpful testimony.

Our next witness is our very distinguished and able colleague, author of some of the legislation before us, the Honorable David Pryor.

Mr. Pryor, we are privileged to have you before us.

The Chair wishes to commend you for your outstanding interest in this matter and the distinguished work you have done in this area. We are happy to have you present.

STATEMENT OF HON. DAVID PRYOR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARKANSAS

Mr. Pryor. Mr. Chairman, it is indeed a privilege for me to appear this morning before this committee on behalf of H.R. 6558, the Ocean Mammal Protection Act of 1971.

This bill was introduced some 5 months ago, cosponsored by roughly 90 Members of Congress, and seeks to offer maximum protection for ocean mammals generally and endangered species specifically. While it is a conservation bill at heart, it is truly much more than that. It is a bill which goes to the very nature of what our country ought to be. It glorifies life and rejects brutality. It speaks to the future by recognizing its past.

In the 5 months since I introduced this legislation, I have received literally thousands of letters in support of this measure. If this committee only had the time, the testimony of those thousands of letters would speak much more eloquently than I, of not only the need for this legislation, but the heart of it.

Before beginning an extended discussion of the provisions of this legislation, and the announcement of what I consider to be a major change in it, I would like for the committee to listen to the words of two experts who unfortunately could not be with us today. The first is addressed to the committee for humane legislation. It says in part:

> To me, to support the Harris-Pryor bill is a most obvious duty. Man has already been responsible of too much destruction while technology at the service of wisdom could have made a paradise out of our planet, and protected the more

than 1,000 various species that we have already eradicated forever. The whales are of special interest, because they are the largest animals that ever existed, because they have a highly developed intelligence, and that their study is extremely meaningful for human physiology. Furthermore, the commercial interest involved in whales are completely archaic and have become most negligible. To act now vigorously is a duty for mankind.

It is signed "Jacques Cousteau."

The second expert wrote some months ago in words so simple they cut right to the substance of what we are trying to do today. He wrote:

Please be kind to the seals and do not let them kill any more.

It is signed by a 6-year-old constituent of mine whose wisdom perhaps transcends all that of the experts which we will hear today.

Mr. Chairman, my bill is not without its critics; legislation of significance will always give rise to criticism. I have, however, been convinced during the period of the last 5 months that some of the criticism this bill has engendered is not only legitimate, but worth heeding. I am therefore planning to reintroduce H.R. 6558 later today and to incorporate within it major changes which will meet the well-intentioned objections which have been raised.

Specifically, those sections dealing with the North Pacific Fur Seal Convention have been rewritten to meet the objections of those who fear that failure to renew the treaty would give rise to the reinstitution of pelagic sealing. Under the provision of the new bill, the Secretary of State would be instructed by the Congress to initiate negotiation to obtain agreements with all nations to ban the killing of all North Pacific fur seals.

In the event of failure to negotiate a new and more extensive treaty, however, the Secretary would, under the new bill, be instructed to renew the North Pacific Fur Seal Convention. This will, at least, insure a minimum amount of protection for the fur seal.

With the permission of the committee, I would like to briefly outline the remainder of the bill, section by section.

Title I of the Harris-Pryor bill, section 101, contains the finding by Congress that ocean mammals are being ruthlessly hunted and killed. Most of these animals face a periodic suffering and brutality at the hands of man; many of them have become rare, and others are in imminent danger of extinction.

Section 102 of title I declares that it is the public policy of the United States to prevent further harassment and killing of these ocean mammals, not only by our unilateral actions, but also by negotiating protective treaties with other nations. The object of these efforts is to obtain a worldwide ban on the killing of ocean mammals.

Title II contains the general prohibitions against further killing of ocean mammals by U.S. citizens, vessels under U.S. jurisdiction, or upon any land or water under the jurisdiction of the United States.

Section 201 of this title contains definitions of "ocean mammals" and other relevant terms.

Section 200 makes it unlawful for any person or vessel subject to U.S. jurisdiction to engage in the taking of ocean mammals either at sea or on land. It also flatly prohibits the import or export of the skins or other parts of ocean mammals in interstate or foreign commerce, whether processed or unprocessed, and regardless of where the animal was killed.

Section 203 exempts from the provisions of the act those ocean mammals killed by Indians, Eskimos, and Aleuts for their own use, as part of their native culture, or under the provisions of the Fur Seal Act of 1966 or the North Pacific Fur Seal Convention.

There is, however, an absolute ban on the killing of polar bears by anyone, for these animals simply cannot bear any further depletion without the future existence of the species becoming jeopardized.

Section 204 exempts from the act the humane capture of a reasonable number of these animals for medical and scientific research and for municipal and/or nonprofit zoos.

Section 205 relates to forfeiture of vessels, skins, and other cargo in cases of violations of provisions of the act.

Section 206 provides for enforcement of the act by the Secretaries of State, Treasury, Interior, Commerce, and Transportation, and section 207 authorizes these Secretaries to issue enforcement regulations.

Section 208 contains penalties for violations of title II. Persons convicted under the act for a first offense shall be subject to a maximum fine of $5,000, a term of imprisonment not to exceed 1 year, or both; second offenses may be punished by a fine up to $10,000, a jail sentence of from 1 to 3 years, or both.

Section 209 contains a repealer of title III of Public Law 89–702, "Protection of Sea Otters on the High Seas," since this law will become redundant after enactment of our legislation.

Titles III and IV relate to the North Pacific Fur Seal Convention and the change as I indicated before.

Mr. Chairman, the Ocean Mammal Protection Act of 1971 is a tough piece of legislation. In fact, it is the toughest of all the measures which are presently before this committee. Frankly, I am not ashamed of that, I am proud of it for these are the times which demand that strong hands take the helm.

Herman Melville once wrote of the "great shroud of the sea which rolled on as it rolled 5,000 years ago." Today the legacy of that 5,000 years ago can be preserved and begun anew.

Thank you, Mr. Chairman.

Mr. Dingell. Mr. Pryor, the committee is grateful to you for your very helpful and fine statement.

The Chair wishes to commend you for your efforts in this area.

Are there any questions for our colleague and friend, Mr. Pryor?

Mr. Potter. Mr. Pryor, as you may know, one of the problems that may be involved in the protection of the Alaska fur seals is that the commercial fisheries which have developed in the Bering Sea tend, according to some information we have, to deplete the food on which the fur seals depend when they are up in the rookeries in the Pribilofs.

If this is true, it suggests that the size of the herd is going to be tied to what is going on with the commercial fisheries, with the herring fleets and other fisheries in the Bering Sea.

Do you feel that it would be useful to incorporate in any legislation to come from this committee a broader perspective, urging the Secretary of State to engage in a more comprehensive treatment of the problem, perhaps for the Bering Sea environmental system?

Mr. Pryor. I would think that the Secretary could engage in a finding of fact, a finding of the facts in establishing what actually is the true picture.

I know there has been a great deal of research in this field, and we see very contradictory numbers appearing constantly as to the population here, and of all of the ocean mammals.

Basically, I do not know if I speak entirely for Senator Harris or the other very wonderful people who are instrumental in helping to draft this legislation, but I think my basic instinct, and I believe would be now, that nature has worked its way over the centuries and the millions of years, and it is time to let nature work its way in this particular field.

Mr. DINGELL. Mr. McCloskey?

Mr. McCLOSKEY. Thank you, Mr. Chairman.

I have one question.

You make an exception for municipal and nonprofit zoos.

What is your feeling about a number of profitmaking institutions, such as the aquatic lands that we have in California and Florida?

Mr. PRYOR. We have no objections, Mr. McCloskey, to stretching this legislation and to treating this section to take care of what we would think a proper number of animals, for example, going to the Marinelands, and so forth, as may be the case in your own State of California, and certainly Mr. Rogers' State of Florida.

I think that the legislation does have to be properly worded, but the intent of this basic legislation was not to deprive those particular institutions of bringing in a proper number of animals for the public use.

Mr. McCLOSKEY. Thank you.

Mr. DINGELL. Thank you very much, Mr. Pryor.

Mr. PRYOR. Thank you, Mr. Chairman.

(The following was supplied for inclusion in the printed record:)

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., September 22, 1971.

Mr. JOHN DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation, Committee on Merchant Marine and Fisheries, Longworth Building.

DEAR MR. CHAIRMAN: I am forwarding for your attention and that of your Committee the signatures of more than 1100 people who have indicated their support for HR 6558, the Ocean Mammal Protection Act of 1971.

I recognize that space will not permit the inclusion of all these names in the Record, but I would be most grateful if the text of the petition and the receipt of the signatures could be duly noted in the Record of the hearings currently being conducted.

With warm regards, I am
Sincerely yours,

DAVID PRYOR,
Member of Congress.

AMERICAN CETACEAN SOCIETY,
Marina Del Rey, Calif., September 6, 1971.

Hon. DAVID PRYOR,
House Office Building,
Washington, D.C.

MY DEAR SIR: Enclosed are the signatures of more than 1100 people who wish to go on record as backing H.R. 6558. (Previously we sent out the same kind of Petition of Interest on S. 1315 and have forwarded to Senator Harris almost 2,000 signatures.

We recognize that there are some inequities in these companion bills, particularly where commercial oceanariums are concerned. As a matter of note, the

San Diego chapter of the American Cetacean Society has voted against furthering either bill for that reason.

However, we believe a platform of this sort from which to examine these problems is preferrable to finding that we have no problems because there are no longer enough animals left to create them. Amendments may be in order, but at least this is a start.

If you have any suggestions for further action on our part, please let us know so that your Board may consider it.

Yours truly,

BEMI DEBUS,
Editor "Whalewatcher."

Enclosure.

PETITION OF INTEREST

OCEAN MAMMAL PROTECTION ACT OF 1971

We, the undersigned, strongly support and urge passage of the Pryor-O'Hara bill, H.R. 6558, companion to the Harris bill, S. 1315, which would prohibit the killing or capturing of all whales, dolphins, seals, sea lions, otters, walruses, polar bears, and manatees, and which would ban the importation of any portion of them into the United States.

[Signatures omitted.]

Mr. DINGELL. At this time we are very pleased to welcome the distinguished chairman of the full committee, Mr. Edward A. Garmatz, for such statement as he chooses to give.

The CHAIRMAN. Thank you very much.

I would like to preface my remarks by saying that, during my 24 years as a Member of Congress, I have never before experienced the volume of mail I have been receiving on the subject of ocean mammals. During the past few months, a steady flow of letters and telegrams has inundated my committee and congressional offices; for the past few weeks, they have averaged 200 a day, and all of them express concern over the way which man is treating his fellow creatures of the earth—the ocean mammals.

One of the most dominant themes of this mountain of correspondence relates to the controversial techniques used in killing the Alaskan fur seal on the Pribilof Islands. Almost everyone is aware that these seals are killed by a blow to the head, followed by a cutting of the artery.

As a result of the furor raised by that method, the Department of Commerce formed a task force which conducted a study to determine if a more humane method of harvesting the seals could be devised.

Just yesterday the Commerce Department held a press conference on the results of that study, and reported that the task force found the annual fur seal harvest is "humanely and efficiently conducted," but that a search for more acceptable methods would continue.

I appreciate the Commerce Department's efforts in conducting this study, but I feel we should not close the door to outside experts. Accordingly, I have asked Congressman Dingell—who will chair these hearings—to throw this entire subject open for close scrutiny and complete discussion. I think the committee should be relentless in its efforts to find the best possible solutions to the many problems concerning ocean mammals, and I know that Chairman Dingell will make certain that every bill pending before the committee will be given fair and thorough consideration.

Frankly, many of the problems reflected in the more than 30 bills pending before the committee are extremely complex ones; they will be difficult to cope with, and might take decades to resolve—even if everyone agreed to one solution. In the case of some of these mammals—such as whales and polar bears and others—the only ultimate solution lies in international agreements, if rare and endangered species are to be protected and preserved.

But the fact that some of these problems are difficult and that others are even discouraging is no excuse for failing to make some honest effort to correct an intolerable situation. Man has already wasted too much time, and he has squandered too much of his heritage; his brutality and stupidity and greed have left a sorry record, and resulted in the total elimination of many species.

These hearings may be a small step, but they at least represent an honest effort to start giving, instead of taking, by developing a more intelligent and humane management of our world's living resources.

I do not envy the members of this subcommittee the formidable task they face in opening these hearings. But I do know that, if progress is to be made in protecting and conserving the world's ocean mammals, the Subcommittee on Fisheries and Wildlife is the appropriate committee to lead the way in formulating a national policy that is sensible and practical.

Thank you very much, Mr. Dingell.

Mr. DINGELL. Thank you, Mr. Chairman.

Our next witness is Miss Gretchen Wyler, World Federation for the Protection of Animals.

STATEMENT OF MISS GRETCHEN WYLER, WORLD FEDERATION FOR THE PROTECTION OF ANIMALS

Miss GRETCHEN. Thank you, Mr. Chairman.

Members of the committee, Mr. Chairman, I would first like to read a statement from Ashley Montagu who, of course, is a world famed anthropologist, formerly regents professor of anthropology, University of California, formerly head of professors of anthropology, Rutgers University.

He says, and I quote:

> To Whom It May Concern:
>
> May I add my voice in support of the Harris-Pryor Bill. I am an anthropologist whose main interest has been the study of human nature, its origin, evolution, and present status. This has entailed the study of most living creatures. And from that study I know that man is a part, an interconnected part, of the whole of animated nature; that he is not superior to it, and that he was not created to preside over the lives of other creatures, but to live in harmony and understanding with all of them.
>
> Any person who sets himself above any other creature, by that act diminishes his humanity, and becomes the kind of creature who thoughtlessly and without feeling can take not only the life of another animal, but also that of another human being.
>
> The step is a very small one. Anyone capable of cruelty to animals is capable of cruelty to human beings. Brutality is brutality, and the more brutal when it is exhibited against defenseless animals than it is when exhibited against human beings who can, at least, defend themselves.
>
> To permit the senseless slaughter of animals is to encourage the dehumanization of man, to acquiesce in the growing callousness which permits one group of men to invest another group of men, and thus every man, with the qualities of an "animal," and without feeling to "waste" them.

In this sense there are no "animals" in the kingdom of animated nature, except the men who think and behave toward other creatures in so callous a manner. The plea I am making is not only for all other animals, and for seals in particular, but also for all human beings.

Now if I may, Mr. Chairman, I will read the statement from the World Federation for the Protection of Animals which is the largest international organization:

> In an age when even human life is not universally respected, it may seem odd to some people to testify to the need to promote respect for non-human animals. However, in adding its support to this bill WFPA is expressing the will of 270 member societies in nearly 60 nations.
>
> The variety of wild animals which earlier generations took for granted will cease to exist in a short time if many species are not given wide protection from commercial and sports exploitation. The multiple pressures on animals, and their habitats, exerted by our technological and numerically exploding society cannot suddenly be stopped. While environmental scientists strive to modify and reduce the pressures, there is an imperative need to halt wanton and intentional destruction.
>
> Our American member societies will be reminding you of the nature of these pressures, and offering evidence of the mindless ways in which the animals under consideration are abused. It is not our present purpose to repeat facts which are mostly available to you at first-hand.
>
> Our intention is to underline the philosophy which lies at the root of this bill, and which is exactly in tune with the feelings of men of diverse cultures at this time. Although conservation is an obvious factor in the bill, the issues at stake are of infinitely greater import than the casual observer might realize.
>
> Beneath the widespread public outcries which increasingly attend the needless and selfish killing of wild animals there is a "precious thread of sentiment." Sentiment is a word often dismissed as being worthless and irrational, but it is also the one expression of sensitivity which separates men from the absurd rationality of robots. A race of men which is devoid of sentiment for non-human animals is capable of destroying the world and all that lives here, without regret.
>
> The freedom to kill "wild animals," which are seemingly the property of no man, and yet the responsibility of all, is not an "inalienable right of man." This precept has been qualified to the extent that the killing shall be done in a manner which minimizes the degree of distress.
>
> It will be made clear that ocean mammals are not being slaughtered in ways which cause the "least possible distress." It will become equally clear, in the light of evidence from others, that in this age, practically no men need to kill the ocean mammals for their survival or their sustenance. Because these two criteria are not being met voluntarily, the Harris-Pryor bill has become essential to give legal substance to the moral indignation of all sensitive adults and young people.
>
> Some bills are too far ahead of their times and are rejected, until public opinion and science can make them seem "irresistible." Other bills, of which the Harris-Pryor bill is an example, may seem to be ahead of their time, but they concern events moving so rapidly as to deny the opportunity for more "leisurely consideration" at a later date.
>
> There is a tide in the affairs of men, and as far as our relationship with wild animals is concerned, the flood is upon us. If this opportunity to exert a leadership over the minds and aspirations of men in America, and far beyond is missed, the initiative will either pass into other hands or the chance be lost forever.
>
> In 1966 the Soviet Minister of Fisheries, Alexander Ishkov, made the following statement, reported in Pravda.
>
> "The capture of dolphins is henceforth prohibited on the territories of the Soviet Union—I believe it will be possible to preserve the dolphins—their capture should be stopped in all the oceans of the world."
>
> So far, this appeal has fallen on stony ground and no government has given an answering call. The Harris-Pryor bill is the first response to be put before any of the world's legislatures. It is a very able response and worthy of a major power, for the bill provides for the protection of seals, whales, walruses, manatees, sea-cows, sea otters, sealions, polar bears and porpoises in addition to dolphins. The degree of protection required by this bill is equally audacious, because, although the measures will apply in the first instance to people, ships

and territory under the American jurisdiction, it will also prevent American dollars from providing an incentive for killing elsewhere.

Most significantly of all, the bill provides that negotiations should be undertaken with foreign governments to obtain international agreements to provide a worldwide ban on the slaughter of ocean animals.

All the benefits and opportunities afforded by the age of technology must be set at nought if those who direct its course have not the wit nor the willingness to secure protection for a harmless and vulnerable section of nonhuman life. This bill does not aim to be fully comprehensive, and wisely concentrates on animals occupying a particularly endangered habitat.

It is, however, a very salutary beginning, and one which could inspire emulation by legislators in every advanced and developing country.

Hear our plea, that the murder of ocean mammals, no matter how useful, be legally and morally banned.

Surely compassion must accompany man's mastery over our fellow creatures.

What a great step if this Legislature could be responsible for the increase in virtue and decency, two very fine words, which unfortunately are seldom ever employed.

Thank you very much.

Mr. BIAGGI (presiding). Mr. Keith?

Mr. KEITH. You represent a worldwide federation?

Miss WYLER. Well, I am a member of that, as I am with many others, yes.

Mr. KEITH. Could you describe the worldwide efforts that your federation has made, and what success you have had with other others.

Miss WYLER. No, unfortunately, I cannot. I cannot list those things, Mr. Keith. They asked me to represent them today. I am a member of that, as I am a card-carrying member of about 12 animal welfare organizations.

I am very active in humane work insofar as running an animal shelter and fighting on different fronts such as Federal spaying programs, humane slaughter, and so forth.

I have been active in the W.F.P.A., but I am not familiar with the success of their efforts and perhaps someone else is.

You might ask Miss Herrington from Friends of Animals, who asked me to represent the society.

Mr. KEITH. I think it would be helpful if we could find what other nations are doing.

We do recognize interrelated problems, and our arguments to our colleagues on the floor would be greatly strengthened.

Miss WYLER. If I may say, either on or off the record, that different groups say their only fear is if we stop, what will happen to all the other countries who will continue killing?

This is a personal statement, but I feel if the alternative is doing nothing, then I think we must take that first step. I think it simply is wrong for us to believe that there are no other countries as humanely inclined as we. For us to take that first major step, I think is important for us to consider.

Mr. BIAGGI. Perhaps you can have your organization submit for the record the efforts you have made with this particular objective in mind.

Miss WYLER. I will, and hopefully it will be an impressive record.

Mr. PELLY. Will the gentleman yield?

Mr. KEITH. I yield.

Mr. PELLY. I think those of us on the committee who had a part in the legislation to protect the endangered species would like to have some sort of report back as to how effective it has been, and whether we are getting the cooperation of other nations.

I think it is highly important that we have this in the record.

Miss WYLER. I am sure you shall have it by tomorrow.

(The information referred to was not received by the committee at the time these hearings were printed.)

Mr. BIAGGI. Our next witness is Miss Alice Herrington, Friends of Animals, New York City.

STATEMENT OF ALICE HERRINGTON, FRIENDS OF ANIMALS, NEW YORK CITY; ACCOMPANIED BY ROBERT C. McCANDLESS, COUNSEL, LEWIS REGENSTEIN, WASHINGTON COORDINATOR, AND VICTOR LOSICK, CAMERAMAN AND FILM EDITOR

Miss HERRINGTON. Mr. Chairman, distinguished members of the committee. I have prepared a very voluminous document. I think it is pride of authorship and it warrants your reading it very carefully and with your permission, I would like to have it put into the record in full.

Mr. BIAGGI. We will put it into the record as though you have read it, Miss Herrington, and you may proceed with other remarks.

Miss HERRINGTON. I would appreciate it since I have a great many scientific quotations and quotations from government reports.

I have asked Mr. McCandless, our counsel, to join me here at the witness table in the event you have any questions about Mr. Pryor's amendment today which we feel should pull the rug out from under the criticism of this bill and let it go forward as an expression of the enumerology.

Now with your permission, Mr. Chairman, I will hand my statement to your reporter so that it may be included in the record.

Mr. BIAGGI. The reporter is instructed to copy the statement into the record as though read.

You may proceed, Miss Herrington.

Miss HERRINGTON. Thank you for this opportunity to speak for the mammals of the oceans, to plead for the protection offered them by H.R. 6558, the measure sponsored by Representative David Pryor and cosponsored by a fifth of the Members of this body, and to oppose H.R. 10420, the "management bill" introduced by Representative Glenn Anderson.

To get the negativism out of the way first, I wish to explain our opposition to H.R. 10420. On its face, and admittedly, it is a "management" bill. It provides that we set up a new and expensive bureaucracy, to study, consult, and report to the old bureaucracy, the Department of Commerce, which would be authorized to issue "permits" for the "harvest" of the "managed" species. The large numbers of people for whom I speak are very clearly and very strongly opposed to "management" and "harvest." What we are for is very simple: We believe that the ocean mammals should be left alone. They should be neither harassed, killed, managed, nor harvested.

Leonardo da Vinci is quoted as saying: "The time will come when men such as I will look on the murder of animals as they now look on the murder of men." This prediction was correct. That time has arrived; the great mass of Americans, now aware of the brutality being inflicted upon innocent animals, have demanded that the laws of this country reflect this new morality of the people.

The animals belong to all the people and that they are loved by the people was dramatically displayed just 3 weeks ago when 47 whales beached themselves in Boca Grande, Fla. A swarm of teenagers came to their rescue, lugged and coaxed them back into the waters, straddled their backs and guided them to safety in the Gulf of Mexico.

Simultaneously, in the Pacific, an American whaling fleet, its activities licensed by Secretary of Commerce Stans, was, and is, engaged in the horror of planting bombs in whales by the hundreds, exploding them into cat meat.

Three weeks ago, a fishery biologist for the National Marine Fisheries Service told the Associated Press that an estimated 200,000 porpoises die accidentally every year in the nets of American tuna fishermen in the eastern tropical Pacific. May I note that 200,000 porpoise deaths is extremely high to be called "accidental" and say that it is unconscionable that our Government permits the use of these nets which are as much as ½-mile long and 300 feet deep. With the passage of the Harris-Pryor bill this "accidental" slaughter of porpoises will be eliminated.

Four weeks ago a marine biologist for the Alaska Department of Fish and Game told the Associated Press that the decomposing carcasses of hundreds of walrus littering shores in northwest Alaska were some of the animals lost during the spring hunt. He said that of the annual slaughter of about 11,700 walrus, fully half are lost due in large part to the method of hunting. He said some hunters fire at random into the herds. Wounded amimals sometimes escape but do not live long. I append a Canadian reporter's account of these senseless massacres of friendly, gentle walrus in the Bering Sea. The slaughter is done almost entirely for the ivory tusks and must be stopped.

Another news story of 3 weeks ago is a shocker which I don't believe has appeared in U.S. papers. It was issued by the British agency, Reuters, from Christchurch, New Zealand. I should like to read verbatim the account which appeared in the Montreal Star on August 23:

> U.S. scientists will study seals and their population and migration patterns during the approaching research season in the Antarctic, according to the U.S. research program.
>
> The study is aimed at eventual seal-hunting in the Antarctic as seal populations diminish elsewhere. D. B. Siniff of the University of Minnesota will conduct a study of the seals October 28–January 28.
>
> Investigations by Siniff and his assistants will include the use of radio telemetry and underwater television techniques at Hutton Cliffs, near McMurdo Station.
>
> Tracked vehicles with receiving equipment will be used to pinpoint the position of seals which have radio transmitters attached to their flippers. Helicopters will also be used for tracking seals.

While it may be refreshing to hear an official admission that the seal populations are decreasing, one must ask: Are animals nowhere safe from the monstrous ministrations of man? Will we shortly be told that the purpose of this invasion of the Antarctic is to save the seals from starvation and disease resulting from overcrowding—the same insulting-to-the-intelligence justification given for the murder of the Pribilof seals and the Amchitka otters? Is there no end to the waste of the public's money—this one must be many, many millions—for such research boondoggles? The polar bear—an animal near extinction—is accorded similar treatment and since 1968 half a million dollars of our taxpayers' money have been spent in harassing them. The animals are shot with anesthetizing darts from moving aircraft with high-powered rifles. Some are killed outright. Others are consigned to harassment or a slow death by the weight of the transmitters hung about their necks. The purpose of the exercise is to put out statistics to show that there are plenty of bears for trophy hunters to pursue.

The seals on the Pribilof Islands have been similarly harassed and it appears that so long as radio transmitters are manufactured you will have men who will hang them on some helpless animal, even though they proved long ago that the effect is death. The cost of all this in animal suffering is immeasurable; the cost in taxpayers' money must be tremendous. We suggest the money, at least, be measured with an open accounting in the Congress of the type and purpose of all so-called research grants, with no money accorded to these animal-tracking projects.

The harassment and murder of the oceans' mammals is an indictment of our Government and its policies. We are therefore grateful that your committee is now acting to change those policies. Whatever the final wording of the bill released by your committee, we ask—on behalf of the animals and the people of this country—that three principles be retained. They are:

1. A total ban on the importation into the United States of all products, raw or finished, from any ocean mammal—sealskin coats, polar bear rugs, whale, dolphin, and porpoise meat for dog and cat food; walrus tusks, suede leather from baby harp seals, and other such frivolous and unnecessary commodities. Such a ban would immediately remove much of the economic incentive for other countries to kill marine mammals since the United States is a major market for these products.

2. A ban on Americans killing ocean mammals anywhere in the world, including the "accidental" killing of porpoises by fishermen. There must be no loopholes allowing for the "taking" of any marine mammal in the name of "management." There must be no delegation of authority to any agency for the issuance of permits to kill for any purpose, since this would legitimize the present situation and condone in principle the further suffering of these intelligent and highly evolved creatures.

3. The third requisite of the bill which must be retained is the mandate of our State Department to vigorously negotiate a truly international treaty for a halt to the slaughter of ocean mammals. The State Department's opposition to this bill based on its reluctance to even try to achieve a new treaty is shocking to me and I should think to most Americans. We believe that our country is a major power capable of influencing other nations. However fine a treaty negotiated 60 years ago, in this period of rapid changes in the ocean environment and diminishing wildlife, the State Department must be forced to do more, if future generations are to see animals outside of a museum for extinct species.

Jacques Cousteau, whose important endorsement of this bill was presented by Mr. Pryor, estimated on the basis of his own undersea observation that ocean life has decreased by 40 percent in the last 20 years. Commenting on this statistic, Dr. George M. Woodwell, an ecologist at Brookhaven National Laboratory, said, "We scientists are just about the last to come across any real proof. But my guess is that Cousteau is dead right." The pollution of the rivers with DDT, mercury, and other chemicals means that the oceans into which the rivers flow are fast becoming the final cesspool of most of man's activities. Dr. Cousteau says flatly, "The oceans are dying while society adopts an ostrich policy."

Certainly the pollution and oil slicks are making survival for the oceans' mammals extremely difficult without adding to it the senseless slaughter for commercial gain and "sportsmen's" pleasure. To those who subscribe to the outmoded belief that the animals are here solely for man's use, we suggest they preserve the mammals as a barometer of the ocean's viability much as miners use canaries to test air quality. Even the Department of the Interior suggests this with their new slogan, "When wildlife tries to tell us something we had better pay attention. That which pollutes the habitat of any living thing pollutes the environment of all living things."

The relatively new field of ecology expresses a new humility, a willingness to admit that the interrelationships of all living things are so complex we cannot possibly know how many of any given species is needed. This is particularly true of the mysterious oceans, and yet the opponents of this bill—the National Rifle Association, the sports-hunters, and commercial interests, not to mention the multitude of bureaucrats involved in the research boondoggles and the massacres, put their argument on the side of "scientific management."

While we will concede that biologists succeed very well in breeding some species of wildlife and stimulating the populations of other land animals—quail, turkey, elk, deer, and other so-called game species—their management abilities simply do not apply to ocean mammals. No one can breed a seal, a whale, a walrus—nor do anything to increase their populations—except to stop killing them. Man has not stopped the forces of nature. The inability to manage nature, even a single species, is found in this statement of a biologist employed in Commerce's seal kill operation:

> Wildlife populations cannot be managed with the same precision as domestic populations. We have no direct control of natural mortality (which determines survival), from birth to the age of reproduction which is one of the most critical factors in managing a wildlife species.

The full statement of this Government biologist is submitted to the chairman. It is highly interesting in that, after describing the failure of the kills on the Pribilofs to achieve maximum sustainable yield—maximum number of skins—he tries to get the exercise in mayhem out from under by describing it as an experiment in the population dynamics of fur seals. Then he pays token to nature's powers by saying that with a cessation of killing females an increase in the population should take place, but adds this chilling qualification, and I quote, "if environmental conditions are the same now as they were in the late 1920's."

We can but hope that the ocean mammal populations will revive again as they did following the 1911 treaty to discontinue pelagic sealing, the killing of seals in the open waters. But what brought the revival of this species was not only the cessation of their slaughter in the open waters, but also on land. For 7 years they were not killed commercially by the four nations involved in the agreement. A second respite was accorded ocean mammals, during the forced moratorium on their killing during the Second World War. As a result, not only did the whales, seals, and other ocean mammals revive, but the oceans recovered their health as evidenced by the vast increase in fish of all variety as well. This proportionate increase of fish and mammals suggests that when the mammals of the oceans are gone, there will be no more fish. No one knows why, but it is a fact that the salmon follow the Alaskan seals and are captured in the fishing nets of the Japanese and Koreans. The tuna follow the porpoise and both tuna and porpoise are caught in the nets of the fishermen. Again, the mammals are clearly needed to keep the oceans viable.

It is only within the past few decades that man has interested himself in the behavior patterns of species other than his own. And the scientists engaged in this field have found that the other animals too have close personal, family, and social relationships and structures. The porpoise caught in the net will not leave the side of a mate or infant even if prodded to do so; a school of whales will follow one of their members harpooned by a whaling fleet and thus offer themselves, through family fidelity, to a wholesale massacre; the mother seal stays by the skinned carcass of her baby for days at a time. The murder of any one of these sentient creatures leaves behind a wake of distress in the whole commune of the species.

The slaughter of harp and Alaskan seals has been widely publicized because these highly organized massacres lend themselves most readily to documentary films and public exposure. The world is outraged over the slaughter of seals, both in the Atlantic and on the Pribilofs—and demands a halt to both. The baby seal, one of nature's friendliest and most appealing creatures, is the object of a gruesome massacre each spring in the Gulf of St. Lawrence and the Northwest Atlantic. Asking you to look at this slaughter from the point of view of the seals, I would like to quote verbatim from an article in the New York Times last March. Since I stood next to the reporter, I can testify as to the accuracy of his account:

> A mother seal threw herself protectively across the body of her pup. When the man who had clubbed it returned to skin the pup, the mother stood fast. A second hunter, then a third, came up to within a foot or two of the mother. It maintained its protective position, resting on its front flippers, its head thrust up and forward, facing the danger. Finally, a man approached from the side. With a quick, darting motion he waved his club within inches of the mother's head, then jerked it back. The seal turned on the man. He backed away. The seal, using its flippers in a pull-push motion, moved slowly and awkwardly over the ice in pursuit. Meanwhile, two hunters had dragged the pup away. The mother turned and tried to give chase but again could not catch up. It stopped and watched the lost pup for a moment. Then it turned, crept to the edge of the ice, and dived into the water.

The mother seals that are driven off bounce up and down in the water holes like a macabre ballet, watching helplessly the murder of their nursing babies. At the end of the day as the killers disappear from the scene the mothers crawl back on the ice, each to nuzzle the bloody, lifeless carcass of her own pup. This year, in Canada's Gulf of St. Lawrence, some 45,000 baby seals were killed in this manner.

Nor do the adults escape the fury of the hunters in the Northwest Atlantic where both the Norwegian and Canadian icebreakers roam. They are clubbed, speared, and shot. In 1971, a gentlemen's agreement fixed the number to be dealt with in this way at 245,000 harp seals. But, to obtain this number many more were wounded or killed and lost under the ice. In pelagic sealing sometimes as few as one in five shot is recovered. As a matter of fact, the United States carried out its own pelagic sealing in the name of "research" in the Pacific in 1968. That year, employees of our Department of the Interior shot and captured 824 seals, primary females, ostensibly for the purpose of finding out what seals eat and certifying the pregnancy rates. But to obtain those 824 seals another 3,586 seals were shot, killed, or wounded and lost.

There can be no doubt that our own country shares a great deal of blame for the senseless killing done by other nations. By providing a major market for sealskin coats and the suede leather obtained from baby seals, we have made the seal kill economically worthwhile and have encouraged this carnage.

Arguments that the harp seals are killed to prevent overcrowding are nonsense. The press release from the Canadian Department of Fisheries and Forestry which announced the opening of the slaughter last March admitted that there had been an overkill in the North Atlantic in recent years, and that the herd that arrived off Labrador was, and I quote, "seriously depleted." Canada's own figures indicate that the size of the herd has been reduced within the last 20 years from 5 million to 1½ million—a depletion of about 70 percent.

The South Africans also carry on a baby seal kill for the benefit of the U.S. fur industry. An Associated Press article which appeared in many papers in August 1971, described how some 80,000 baby seals are "harvested." They are beaten on the head with clubs, stabbed with a stiletto, and then skinned, presumably while their terrified mothers look on in helpless agony. According to the article, the baby seals are killed because their pelts bring some $1.4 million on the U.S. market, where they are later processed and sold as sealskin coats. The slaughter may still be continuing at this very moment while we sit here deliberating our guilt.

Not only does our country encourage other nations to kill seals, but our Government, I am ashamed to say, has its very own official seal-killing operation. In July and August, on the Pribilof Islands in the Bering Sea off Alaska, tens of thousands of Alaskan fur seals are driven inland until their lungs are bursting and then clubbed to death by employees of the U.S. Government, formerly of the Department of Interior, now the Department of Commerce.

In the summer of 1970, I spent 10 days on the Island of St. Paul, one of the Pribilofs. Accompanying me were two professional filmmakers, Tom Bywaters and Victor Losick. On June 25, the island manager, Roy Hurd, drove us to the Zapadni hauling grounds. From notes written while I was on the island, these are some of my observations:

> By our time of arrival at the hauling grounds (5:20 a.m.) virtually all of the seals—about 1,000 animals—had been driven over the rocks in pods of about 90 to a flat stretch of green—the killing field. Half of the herd was being driven up a steep hill to another field to await their turn. By 8:30, 366 seals had clubbed,

stuck, and skinned. Sixteen teenage children removed the penis and testicles from the carcasses, for sale to a firm which peddles them for cocktail stirrers and aphrodisiacs.

The kill: five to nine seals would be separated from the herd by a man rattling a can to frighten them into moving into front of the clubbers. In almost all cases the seals received two blows. Whether this was necessary or just to show that they make certain, I could not know—except in the instances where the first blow fell on the body. About every fourth seal received a severe blow on the back before it was felled with a second or third blow to the head.

I stood about five feet from one seal which was permitted to escape after receiving a glancing blow, and it waddled past me toward the water with blood streaming from the socket where an eye had been socked loose. This same seal had fish net embedded in its coat, which, I was told, was the reason for not chasing it. The fur is not valuable commercially when it has been mangled with fish net.

The terror of the seals during the long hours of waiting and watching the murder of their friends and relatives was pathetic, the ultimate in sadistic treatment. Mr. Hurd gave as the reason for driving the seals from the hauling grounds all at one time, the cost of employing more men to stand guard to prevent escape into the sea.

At this point, may I briefly address myself to the Commerce Department's defense of their "sealing operation?"

1. They claim, first of all, that clubbing the seals to death is the most "humane" way of killing them. To use the word "humane" in this context is a perversion of language and reality, but I do not wish to argue over how the seals are killed. The point is that there is no justification for killing these intelligent, highly-evolved creatures: sealskin coats are hardly a necessity to our society.

2. The Commerce Department continuously emphasizes that the size of the Pribilof seal herd has risen from 200,000 seals in 1911 to approximately 1.3 million today. But to compare 1971 with 1911 is an entirely spurious size of the herd, and this is given in an official account as exceeding 5 million. Encyclopedia Americana, volume 24, pages 480 to 485, article by Seton Thompson, Chief, Division of Alaskan Fisheries, U.S. Fish and Wildlife Service. The same article gives an estimate for 1948, the period following the Second World War moratorium on killing, as about 4 million.

Hence, if the herd today is 1.3 million, as Commerce claims, then the size of the Alaskan herd has decreased—not increased—by about 75 percent.

It should be noted that the Russians have stated publicly that there is a "serious depletion in the once-huge herd." And since there is great intermingling, according to Interior's reports, between the seals which breed on the Russian Islands and those which breed on the Pribilofs, it is clear that the Pribilof herd is also seriously depleted.

But the bureaucrats employed in the Pribilof operation will be the last to admit this. Their tactics with the public—and the Congress—bring to mind the old cliche, "Lies, damn lies, and statistics."

For example, the manager of the program, William Peck, on returning to the States after this year's kill, told a Seattle Times reporter, and I quote, "Births on the islands show no downward trend." He said this even though he knows very well that there has been a staggering 52-percent decrease in births over the past 10 years. I append the official statistics.

The Seattle Times reports that "this year's take of fur seals in the Pribilofs totaled 31,847 skins, compared with 42,179 a year ago."

The number to be killed this year, announced by the Commerce in early June, was 40,000. This stimulated us to prepare a table, based on Government data, to show that if 40,000 seals are killed in this summer of 1971, 9,000 would again have to be female. We credit this circulation of this table with having spared the lives of females with pups in the breeding rookeries.

In its publicity, Commerce assures the public that baby and mother seals are not killed, only "surplus bachelor males." But in this once vast herd, now reduced to a pitiful remnant of its former size, there are, of course, no "surplus" seals. Moreover, mother and baby seals are killed by the tens of thousands.

Victor Sheffer, the Interior Department biologist who used to supervise the kill, states in his book, the "Year of the Seal" (p. 108) : "In a recent decade, 250,000 females of breeding age were killed on the Pribilofs." He also notes that their pups inevitably die of starvation.

In 1968, in the face of a rapidly declining birth rate, the bureaucrats again sent the Aleuts into the breeding rookeries to kill 11,594 females, all of whom had pups, all of whom were pregnant. And then they have the audacity to tell the public that their purpose is to spare seals the suffering of disease and starvation.

The purposes, patently, was to obtain more skins. And, given the fact that 42 bureaucrats are employed year-round in Seattle and another 50 or so full or part-time in Washington, D.C., whose salaries are supposed to be paid from the sale of sealskins, such a sacrifice of the animals for their own welfare should be anticipated.

We are pleased to submit to the chairman photocopies of the Bureau of the Budget's detailed report showing that Pribilof expenditures exceeded income by over $2 million in 1970. The bureaucrats grow desperate over such a deficit.

That the bureaucrats' claims to scientific management are pure publicity puffery and that the Alaskan seal herd is, as the Russians claim, "seriously depleted," is revealed by the disparities in their own data, quoted below.

The photocopies of pages from Government reports, noted as exhibits, are appended to the copy of this report given the chairman.

Keeping in mind that in July of this year 31,847 seals were killed on the Pribilofs, or as the bureaucrats would phrase it, "the maximum 1971 yield was 31,847 skins," prior year's reports state variously:

"Approximately 50,000 pelts from males and 10,000 from females are taken annually." (Exhibit J, June 1970.)

"From 1970 to 1967 the herd has provided an average 58,758 male sealskins." (Exhibit K, published April, 1970.)

The same report (exhibit L) states: "50,000 to 65,000 young males are harvested annually." (Note males.)

The report on the 1968 kill, printed in December 1970, gives data as follows:

Exhibit N: 44,292 males, ages 2 to 6; 1,333 young males, age undetermined.

Exhibit O: 13,335 females (all but 36 of breeding age)—pages 76–78.

Exhibit P: 698 females taken pelagically, 126 males taken pelagically.

Exhibit Q: 3,568 seals wounded or killed and lost in pelagic sealing; 63,370 total, including pelagic sealing; 58,960 total, killed on Pribilofs (including females) ; 45,625 total, males only, killed on Pribilofs.

In any responsible compilation of population of ocean mammals, the numbers of seals of breeding age is vital. The inclusion of pups to pad a herd total is a deceptive practice since, again to quote Government data, the survival of pups is often as low as 15 percent.

Therefore, to achieve a realistic estimate of herd size, we took Government data on the headcount of adult males in 1968 and published it in the New York Times as follows: 7,924 harem bulls; 4,383 idle males, 316,960 females of breeding age—an average of 40 per harem bull—total 329,960. This prompted Senator Kennedy to make an inquiry of the Department of Commerce which responded that our advertisement "contains many misstatements and distortions regarding the condition of the Pribilof Islands seal herd" but simultaneously admitted that the breeding population is about one-quarter of their estimated 1.3 million herd total. One-quarter of 1.3 million is 325,000 seals of breeding age.

Our published figure, then, was deceptive only in being high by about 5,000 seals. However, that was 1968 data and obviously the number of mature seals has decreased significantly during that 3-year period, following the trend which I quote here from the 1968 year report:

> The total number of adult males counted on the Pribilof Islands in July, 1968, has decreased annually since 1961. [exhibit G]
>
> . . . the number of harem and idle males counted in 1968 represents 63 percent and 37 percent, respectively, of the number counted in 1962. [exhibit G.]

Another ploy by which these bureaucrats attempt to support their positions as "scientific managers" is "managed pup production."

Since it is done by slaughtering breeding females, it is also termed a "manipulation of the population". Its expressed purpose, and I quote from Commerce's letter to Senator Kennedy, is to "achieve the level of abundance that will provide the maximum sustainable yield"—the yield being skins.

Gentlemen, I repeat that this is a gross prevarication of the most despicable sort. The bureaucrats have been aware for a long time that the herd is in trouble. Their slaughter of breeding females was solely to obtain more skins. For a time their reports gave this new embarrassing information:

> By the time the United States purchased Alaska, the Pribilof herd had recovered to the point it sustained an annual harvest of 100,000 males for many years. [exhibit H.]

That this statistic of 100,000 skins is embarrassing to them is found in a report to the Honorable John D. Dingell (exhibit EE), where the figure is expressed only as several thousand. It is many, many years since their "managed pup production" produced a "maximum sustainable yield" of 100,000 male sealskins. In 1971 their proven abilities produced 31,847 skins, some of which were certainly females.

May I also point out that in our Government's seal massacre, which the Commerce Department describes as a model of conservation, it is not the old and the diseased seals that are killed, as nature provides for in its law of survival of the fittest. Rather, the healthiest seals are killed, those whose pelts will make the most attractive, unblemished sealskin coats.

Commerce also defends the seal kill on the basis of employment for the Aleuts. But the Harris-Pryor bill would give them an opportunity to develop the Pribilofs as a tourist attraction.

To emphasize the reality of this proposal, I should like to read a comment I received a week ago from no less an authority than Lars-Eric Lindblad, organizer of extraordinary tours to places like the Arctic, the Amazon, Darwin's Galapagos, and many others:

> Wildlife everywhere in the world is increasingly becoming a big money earner—not as furs or as meat, but as a target for photographers and nature-lovers of which there are millions. The Aleut natives would benefit to a much greater extent from the tourists who could be induced to come to the Islands than they would from being butchers of these beautiful fur seals.
>
> How many women will buy coats and other garments made of the skins of wild animals in years to come? It is definitely becoming unfashionable to wear furs. It is time for the Department of the Interior to switch the economy of the Pribilofs from killing the seals to making a fabulous tourist attraction. It is not difficult to do and within a few years the Government could stop or reduce their subsidies to the Aleuts.

Mr. Linblad's point that now is the time to examine other employment for the Aleuts, tourism or otherwise, is one which should be transmitted to the appropriate agencies. Certainly, these people originally sent as slaves to the Pribilofs by the Russians should no longer be forced to do their demeaning work.

Another justification for the slaughter, subscribed to by many simple fishermen and the U.S. Department of State, is the fact that seals eat fish, fish which are wanted, mind you, for the profit of fishermen, even though they may be discarded as was the case, by the ton, last summer in Alaska.

We will certainly concede that seals eat fish, but again we point to the lack of knowledge of the interrelationship of living creatures and cite again the fact that the salmon follow the seals to their breeding grounds, which must surely indicate that with the disappearance of the ocean mammals, there may well be no more fish. Even the Department of the Interior is willing to admit a certain humility in this field, and I quote from an official report:

> Considering the volume and frequency of occurrence of commercially important fishes found in fur seal stomachs, and our limited knowledge of the ocean environment and its ecology, we believe the effects of predation on food species with economic value are impossible to assess with any degree of confidence. [Exhibit Y.]

News of this limited knowledge of the interrelationships of seals and fish should be the subject of a massive educational campaign with fishermen, particularly those in Alaska, where the hair seal, which has a limited economic value, is the object of a sustained effort to eliminate it through such methods as dynamiting and shooting.

Harbor seals around the coasts of our mainland are accorded similar treatment, and at least one State—Oregon—employs a man to shoot all seals on sight. This brutality and lack of respect for nature and her creatures must be brought to an end, and only the Harris-Pryor bill will do it.

An animal very much endangered due to its persecution by fur hunters and fishermen is the charming sea otter. It is so rare now off the coast of California that the abalone fishermen who formerly killed it on sight have occasion to regret their black deeds.

With the disappearance of the otter, a voracious eater of sea urchins, the latter population has exploded so as to consume the giant kelp, mainstay of abalone and other fish. Now, human deep sea divers are employed in an unsuccessful effort to replace the sea otters in killing the urchins.

On Amchitka Island in the Bering Sea where the sea otter population revived following a ban on their slaughter—and where they may again be decimated if the October atomic test takes place—our Federal Government is again conducting what they call "an experimental harvest" using the same worn excuse that it is for the benefit of the otters.

Are these biologists so simple they are unaware that when an animal population becomes too large in one area, a process of migration begins—and that the migration of these otters to other areas is desirable?

Frankly, such simplicity is doubted. It is evident once again that our Government cannot resist the dollars that this friendly animal's pelt brings. Nor can the Federal biologists resist the opportunity—given by the same dollars—to "experiment" with killing these animals for the sake of making perfectly spurious tables of birth and death rates.

Most people are aware of nature's generosity—that she increases the birth rate when there are too few of a species, and that she also decreases the rate when there are sufficient for her purposes.

The magnificent whale, for example, which has no natural enemies—man being an unnatural enemy—has a built-in birth-control system which is pure perfection—except for this species' inability to survive in the face of man's greed.

Unless drastic and immediate action is taken, several of the larger species of whales will soon be reduced in numbers to a point at which their extinction will become less inevitable. Eventually, if the present whale hunting trend continues, most other whales, including the porpoises and the dolphins, may also disappear.

This impending tragedy can and must be prevented. Whales are among the most intelligent and highly evolved of all the world's creatures, in some respects very much like their fellow human mammals.

Many of these warm-blooded, air-breathing mammals are monogamous; they nurse their young and usually bear a calf every 2 years. They "cry" in agony when they are wounded by a harpoon; and the "song" that the humpback whales sing is so beautiful and intricate that it has inspired a symphony and been made into a popular record album.

There have been many incidents in which a whale has been harpooned or captured by a boat, and its family has followed it or waited offshore for its return for days and weeks at a time. Whalers have taken advantage of this protective and highly social characteristic by harpooning baby whales, towing them into the whaling station on shore, and then butchering the entire family or even the herd which faithfully follows along.

According to history and legend, man's relationship with whales has, until comparatively recent times, been a quite friendly one. The prophet Jeremiah made reference to these "monsters of the sea" and the whale, which the Bible tells us swallowed Jonah, not only did him no harm, but also saved him from drowning.

Paintings and woodprints from early seafaring peoples show ancient sailing ships followed and surrounded by playful, friendly whales. Countless sea legends abound in which dolphins are credited with saving the lives of drowning people.

Naturalist Tom Garrett has described how primitive peoples living in coastal areas and along large rivers have traditionally utilized whales as part of their culture, using cooperative dolphins to herd fish into their nets, or even to protect them from dangers such as piranha fish.

Historical accounts describe this relationship as being so close that the native peoples have violently resisted efforts of scientists to obtain dolphin specimens.

Of all the whales now disappearing, perhaps the most tragic loss is that of the mighty blue whale--the largest creature ever to inhabit the earth. The blue whale is so closely related to man that it has a nearly identical body temperature and a remarkably similar brain, eye, and circulatory system.

Since these whales have vestigial hipbones which are unconnected to the rest of the skeleton, there has been speculation that its ancestors once inhabited the land, returning to the sea in pursuit of food, or, ironically, protection.

It is difficult to conceive of the enormity of this "leviathan," but Associated Press writer John Barbour describes its size in graphic terms:

> Nothing on earth has ever matched its size. It is larger than 30 elephants; larger than the combined size of three of the largest dinosaurs that ever lived. It weighs more than 2,000 people, a small town. Its heart weighs 1,200 pounds, its liver a ton, its tongue more than one-third ton. The Blue Whale calf nurses for seven months, taking in as much as 1,000 pounds of milk per day.

Yet, this gentle creature has a throat so small that it cannot swallow any fish larger than a sardine.

At the beginning of this century, the blue whale population was over 100,000. Today, a mere few hundred at most survive worldwide—some estimates go as high as 3,000.

There is serious doubt that enough males and females will be able to find each other over the great expanse of the ocean to enable the species to breed and perpetuate itself.

At the present time, other whale species which are gravely threatened include the humpback, sei, finback, bowhead, sperm, gray, and right whales.

The asiatic gray whale population has apparently disappeared; and the largest known colony of nominally protected southern right whales was wiped out "to the last mother and infant" in 1962 by a whaling fleet off Tristan da Cunha.

The state of depletion of the ocean's whale population was vividly demonstrated during Sir Francis Chichester's recent voyage around the world, during which he saw only one solitary whale. A few years earlier, almost daily encounters with these curious and friendly creatures would not have been unusual.

Our Government is clearly implicated in this tragedy. As a major importer of whale meat—used for dog and cat food and on mink farms—and whale oil, used in paint, transmission oil, tanning leather, and cosmetics, the United States has helped to generate the demand for whales and thus encouraged their indiscriminate slaughter.

While Japan and the Soviet Union account for most of the world's whaling, the United States consumes almost a third of the take.

Walter Hickel's last act as Secretary of the Interior was to place the eight large whale species on Interior's endangered species list, thus banning the import of their products into this country. This action, unfortunately, came too late to have much of an effect.

In praising this gesture, the New York Times pointed out:

> The magnificent Blue whale may already have passed the point of no return and be headed irreversibly towards extinction. The rare Grey, Humpback, and Bowhead whales are also gravely threatened—and all in the interest of such vital products as cat food.

If whales had been placed on the Interior Department's endangered list a few years earlier, it is probable that whales would not be in the tragic situation they are in today.

Such a step would have been consistent with the Endangered Species Conservation Act of 1969, the intent of which is to prevent such conditions before they occur.

It should be emphasized that at the present time, only eight species of whales are banned from import into the United States. The remaining 80-some varieties may continue to be hunted, killed, and imported, presumably until they, too, reach the brink of extinction.

The whaling industry is already anticipating the day when there will be no more large whales left to "harvest." They will be replaced by dolphins and porpoises—among the most friendly and intelligent species of whales—which are already being killed in extraordinary numbers.

Last year, the Japanese are estimated to have "taken" some 200,000 dolphins and porpoises, with perhaps an equal or greater number being caught in nets and inadvertently killed by Japanese and American fishermen.

According to Prof. Kenneth Norris, director of the Oceanic Institute at the Makapuu Ocean Center in Hawaii, these creatures will soon face the same danger of extinction as the larger whales, since they can be used as a substitute for traditional types of whale meat in dog and cat food.

Our current attitude toward dolphins contrasts sharply with man's cooperative relationship with them in the past. Pliny the Elder has described how the ancient Greeks used dolphins to lead them to schools of fish and then shared their catch with these friendly cetaceans. According to Pliny, the dolphins even waited in the area until the following day to be rewarded for their efforts with bread dipped in wine.

The practice of modern tuna fleets is similar, except that the dolphins are picked up by the nets, along with the fish, and killed.

The real tragedy of this situation is that whales are being killed quite unnecessarily.

As Senator Fred Harris pointed out when he introduced our bill to protect whales and other ocean mammals:

> For the sake of money—primarily the American dollar—these animals are subjected to massive brutality and slaughter. There is no product from any of these creatures which is essential for human survival or welfare. Each has a readily available substitute.

The informational organization which has the responsibility for regulating whaling and setting quotas which will not deplete the species is the International Whaling Commission, IWC. This body, however, has been so dominated by the commercial interest groups that it has allowed whales to be slaughtered far beyond any reasonable limit. The IWC has often been charged with greed and shortsightedness in allowing the primary source of income of its members to be wiped out rather than adopting the sustained yield concept.

Lately, however, a new theory has gained credence which does, in fact, make more sense, namely that the whaling interests which control the IWC decided some time ago that it would be more profitable for the whaling industry to kill off the world's remaining whales and take a short-term gain rather than to kill a limited number every year over an indefinite period.

The conclusion that such a decision was intentionally made is almost inescapable: It does not seem possible that the IWC could have been unaware of what effect its quotas were having on the whale herds.

We are now presented with the opportunity to help save the world's remaining whales, but we must act quickly. If we do not promptly take the lead in providing protection to these unique and awe-inspiring creatures, they will soon vanish from the seas forever.

Another ocean species which is gravely threatened is the polar bear. According to the authoritative red data book of endangered species, the worldwide polar bear population in 1966 was between 5,000 to 10,000, with about 1,300 a year being killed.

Even though the polar bear is rapidly disappearing, Alaska's Fish and Game Department still permits its hunting by airplane. According to Jack Lentfer of Alaska's Fish and Game Department, "airplane hunting amounts to one plane driving the bear to another plane and the hunter." By the time the hunter is ready to shoot the bear, it is completely terrified and exhausted.

The Soviet Union, which has the main denning areas of the bears, has protected them since 1957, and blames the United States for hunting this magnificent animal practically to the point of extinction as it migrates from Russia to Alaska. We certainly deserve the charge of killing off the bears which Russia protects.

Conservationists have long urged the U.S. Department of the Interior to place the polar bear on its Endangered Species List. Earlier this year, Friends of Animals, Inc., brought a suit to force its listing. Interior has refused to do so, and gave the court as its reason this mind-boggler: The Russians are so assiduous in protecting the polar bear that there remain plenty for American "sportshunter" to kill.

Therefore, the Harris-Pryor bill is now the main hope of survival for the polar bear.

Mr. Chairman, we can no longer plead ignorance. We all know what is happening to the ocean mammals, and we must all share a portion of the blame for its perpetuation.

A decade ago, the great naturalist and humanitarian, Joseph Wood Krutch, wrote an article entitled "Human Life in the Context of Nature," which I request be printed in full. I should like to quote here one passage very relevant to your favorable report on the Harris-Pryor bill:

> The wisest, the most enlightened, the most long-seeing exploitation of resources is not enough for the simple reason that the whole concept of exploitation for man's use alone is false and is so limited that in the end it will defeat itself. The earth will have been plundered under that form of conservation and laid waste, no matter how scientifically and how far-seeingly the plundering and the waste has been accomplished. Something is fatally lacking in that concept of conservation and the thing lacking is the feeling for, or the love of, the

natural world of which man is a part. It is the failure to realize that this is not only one world, but also one earth. Mankind is now only not an island in respect to other men, but also is not an island in respect to nature as a whole. He must come to some kind of terms with it.

But without the glad appreciation of our relationship to nature, without the idea of living with nature, not merely upon nature, we must end sooner or later either living—or I think more probably dying—in a world where man has paid the penalty for doing what he cannot do successfully: namely, think only to himself.

We believe the new morality, which is a worldwide phenomenon, and I do not think we should be quite so egocentric to think the United States has it all alone. We think it is really a rather shocking thing that our State Department should oppose the idea of making a new treaty these days on the grounds it does not think it can succeed.

What is so shocking to us who are members of a major power is their unwillingness to even try.

(A statistical estimate of the number of fur seals born on the Pribilof Islands follow:)

YEARS, COUNTS, AND ESTIMATES OF THE NUMBER OF FUR SEALS BORN ON THE PRIBILOF ISLANDS

Year	Number of pups born (in thousands)		
	Counts	Estimated from tagging	Estimated from shearing and sampling
1912	82		
1913	92		
1914	93		
1915	104		
1916	117		
1917	128		
1918	143		
1919	157		
1920	168		
1921	177		
1922	186		
1923			
1924	208		
1948		592	
1949		550	
1950			
1951		570	
1952		616	
1953		795	
1954		838	
1955		868	
1956		992	
1957		712	
1958		729	
1959		778	
1960		643	
1961		544	438
1962		477	362
1963		443	343
1964		421	370
1965		387	347
1966		437	388
1967		[1] 434	
1968			
1969			304
1970			306

[1] Estimate is based on recoveries through age 3 only.

Source: Attachment to a sworn affidavit of Ancel Johnson, wildlife research biologist employed by the National Marine Fishereis Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, July 1, 1971.

Miss HERRINGTON. As effective as the first seal treaty was in 1911, that is a great many years ago, and I do not think I was even born then and, as Jacques Cousteau has said, within the past 20 years the life in the ocean has decreased 30 percent to 40 percent.

We must admit it is very difficult for the ocean mammals to survive on the pollution, the oil spills, the senseless killing that we add on top of it for their skins or for the frivality of it.

Mr. KEITH. You made a reference to opposition by the State Department.

What is your authority for that statement?

Miss HERRINGTON. May I ask Mr. MCandless to answer that?

Mr. KEITH. She said they were opposed to a new treaty. I would like to know: what is the authority for that statement?

Mr. McCandless. Mr. Congressman, I would not say that the State Department would be the sole opposition.

We met with employees of the State Department as we were trying to draft comprehensive legislation on the matter, and we were impressed then, and subsequent to the introduction of the Harris-Pryor bill with their rather adamant position that this treaty with the signatory nations was almost divinely inspired and that state could see no way in the world if this treaty were allowed to lapse in 1976, that it would be possible to ever get another treaty or to get one as good as the one that they think they had.

Mr. Keith. I am not an attorney, but it does seem to me that Miss Herrington said they oppose a new treaty. I would appreciate it if she could document that statement or if you could.

Miss Herrington. Did I not say they opposed the Harris-Pryor bill on the ground that a new treaty—well, Louis Regenstein can speak, who is our Washington coordinator. He feels he would like to have a word on that subject.

Mr. Regenstein. Thank you very much, Mr. Chairman.

We have had numerous conversations with officials of the State Department concerned with this area.

Let me mention the one man who is directly concerned with it, Mr. Stewart Blow. He is the assistant to the oceanic coordinator in the State Department.

He has stated to me numerous times that he opposes the Harris-Pryor bill and opposes any tampering with the Pribiloff Fur Treaty.

Mr. Dingell. (Presiding) the Chair would like to observe in order to have an orderly record it would be well for you, Miss Herrington, to be sure that the committee has the names of both gentlemen at the table and, if you have not already done so, to let our reporter know who they are.

Miss Herrington. At this time, I believe I could continue.

Mr. Dingell. I want to be sure we have the names of the two gentlemen.

Miss Herrington. We will certainly submit them.

Mr. Regenstein. I am Louis Regenstein, Washington coordinator for the committee.

Mr. McCandless. I am Robert McCandless, attorney for the Committee for Humane Legislation, Inc.

Mr. Keith. I think, really, Mr. Chairman, that your observation that the State Department opposes a new treaty on this matter is something for the State Department to make, not for an individual to comment on as you did or as your associate did.

You are talking about a subordinate in the State Department. That is quite different from the State Department positions. The State Department will have its chance to be heard if there is a new treaty proposed.

I think we should be looking to you for arguments that would advance the cause of the new treaty rather than a statement to the effect that the Department will oppose any new treaty.

Miss Herrington. Thank you, sir. We shall be only too glad to look to the State Department to express a positive position.

I think perhaps I should take up the issue here and face it head-on and refer at that time to the alternate bill, H.R. 10420, which is a management bill, and which would create a new superstructure, a commission.

I think we should say at this time we do not need more study of the poor animals in the oceans to consult and review while we permit the issuance of permits to kill animals by the Department of Interior which is really avoiding the issue which is quite simple.

We should stop killing the animals. The only way to peace is to stop this war on the animals now. They should be neither harvested, killed, managed for harvest.

I think perhaps I might call on one of our young people who has worked so very hard for the animals at this point, Miss Susane Karliner of Nassau, N.Y. I believe her representative, Mr. Wolff, would like to say something to you.

STATEMENT OF HON. LESTER WOLFF, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. Wolff. Thank you very much, for permitting me to introduce this young lady, Mr. Chairman, and for the opportunity of appearing before you.

Mr. Dingell. The Chair is happy to welcome you, Mr. Wolff.

Identify yourself fully for the record.

Mr. Wolff. I am Representative Lester Wolff, a Democrat, Third District of New York.

As I indicated, Mr. Chairman, I am happy to be here on two counts, one in support of the Harris-Pryor bill, as a cosponsor of the bill, and second, to introduce a young lady who has some firsthand observations for you.

In these times of great stress and trouble, it is very heartening to see young people take an interest in things such as the protection of our dwindling natural resources.

I might say while sitting here and listening to the previous testimony, being a member of the Foreign Affairs Committee and the colloquy that just took place relative to the State Department, we have observed, the State Department does seem to have a confused position on a lot of things.

However, I would like to introduce to the committee Miss Susane Karliner, a 15-year-old sophomore. She became interested in the preservation of ocean mammals this year and circulated many petitions for their protection.

STATEMENT OF MISS SUSANE KARLINER, NASSAU, N.Y.

Miss Karliner. My name is Susane Karliner and I am a student at Syosset High School in Syosset, N.Y. In March of this year I spent almost a week on the Magdalene Islands in the Gulf of St. Lawrence. I was one of four students sponsored by local ecological groups and we were there to witness the beauty and purity of the ice floes and its population of harp seals before the annual slaughter began.

Each day we were set down by helicopters. With quiet words and gentle motions we could calm mother seals into letting us stroke and pet their young. The baby harp seal is a white puff of fur with dark, teary eyes and it looks as if we were designed by Walt Disney for all the children of the world. It is truly impossible for me to understand how any human being can bring himself to kill them. Their slaughter is more than just bloody, it is unnatural.

I did not stay for the kill but this is the way Oscar Hartzell, another student who did witness the kill, described it:

> At dawn, "landsmen" the citizens of the coasts and island—stream across the ice on foot, snowmobile and even by car. All day airplanes scour the ice spotting herds for the commercial ships. Hunted from land, sea, and air, a white puff of fur is a pitiful disquise.
>
> One day I walked out on the ice with the landsmen, who dress for the hunt in overalls, rubber boots and carry a club thirty inches long and three inches thick. By the end of the day, boots, overalls and club were blood red. The men stopped frequently to warm their hands in blood and smear it under their eyes.
>
> Seals are friendly to man and just as they allowed us to approach to pet their babies, they allowed the hunters to approach. They usually went to the nearest open water and bobbed up and down, looking bewildered as their babies were clubbed. Each mother has one pup and knows him from all others, even when he is nothing but a carcass. With cruel accuracy one biologist has given the period of mourning as four days. At the end of the day when the hunters have gone and the ice is covered with bodies, the searching females with their beautifully shaped heads look like a tragic chrous of madonnas.
>
> The hunter tries to hit the baby seal squarely on the head with the first blow of the club. Sometimes he misses. I saw a man club a seal twice, kick it over on its back and start to cut it. All the time, the animal was jumping and crying. The man looked up at me and clubbed it again quickly. A native of the islands told me himself that the seal hunters "don't want to take the time to make sure the seals are dead."

This is what Oscar saw of the hunt. One official from the Ministry of Fisheries excused the hunt as "the Easter and Mardi Gras rolled into one for people whose life is uneventful." What a waste of life for just a holiday.

To me it is a final irony that when the last seal is killed and the last hunter returns home from the ice, he can stop at almost any of the stores of the Magdalene Islands and buy a foam and nylon baby seal for a child who may never have a chance to see a real one.

Mr. Wolff. Thank you, Mr. Chairman.

Mr. Dingell. Thank you, Mr. Wolff.

Miss Herrington, do you wish to continue?

Miss Herrington. Thank you, Susane.

Of course, the kill of the baby seals in the Gulf of the St. Lawrence and the Northwest Atlantic by the Canadians and Norwegians is a true horror, one which has moved our country and the Harris-Pryor bill would do a great deal to stop that kill by removing the economic incentive for it by banning the importation of this particular sealskin into the country.

We can hardly, though, castigate other countries for their immorality when the blood of the Pribiloffs is so thick upon our own hands.

I am so pleased that you have given us the opportunity at this time to show you just what the Alaskan fur seals are like and just what the management of them concerns.

Possibly you gentlemen would be able to see the screen better if you moved to the other side.

[Film shown on the clubbing of seals.]

Miss Herrington. Gentlemen, our time is growing short and I would like to introduce the daughter of Senator Fred Harris, this beautiful young lady is Laura Harris.

Mr. Dingell. Young lady, we are happy to welcome you to the committee.

STATEMENT OF MISS LAURA HARRIS, DAUGHTER OF SENATOR AND MRS. FRED HARRIS OF OKLAHOMA

Miss HARRIS. Mr. Chairman, I am here today to represent the children of the United States.

A lot of my friends and I are worried that when we grow up and have children of our own, there will not be any more sea mammals for us to see.

We think that people should quit killing sea mammals.

We hope you will stop this killing.

As a Comanche Indian I would not like to put the Aleuts out of business, but people do not need sealskin coats. They can use other materials and I hope you will help the Aleuts get started in other jobs.

Mr. Chairman, I have a list of names of people in my neighborhood and class who feel the same way I do about saving the seals and other sea mammals.

Mr. DINGELL. Young lady, we are grateful for you to be with us. Thank you for your very helpful statement.

Let me ask how old you are.

Miss HARRIS. Ten.

Mr. DINGELL. You have done a fine job.

Miss HERRINGTON. Thank you, Laura.

I will then ask Dr. Greenberg, a very noted psychologist, to make a few comments.

Mr. DINGELL. Dr. Greenberg, you are recognized.

STATEMENT OF DR. HERBERT GREENBERG, PRESIDENT OF MARKETING SURVEY AND RESEARCH CORP.

Dr. GREENBERG. I appreciate it and I would like to have my wife with me and perhaps respond with me. She has stuck with me in marriage and our work for the past few years.

Mr. DINGELL. Would you give your full address?

Dr. GREENBERG. Yes, by way of identification, I am Dr. Herbert Greenberg, president of Marketing Survey and Research Corp. in Princeton, N.J.

We are at least, sometimes we think only theoretically in the profit-making business, so that I am not here to attack the profit motive or put it down, but what we do, we have been in the business of doing for 14 years, the studying of human personalities and applying our studies to human effectiveness, placing people in the right jobs and trying to understand what makes them tick and how to use it, to tap the great human resource that unfortunately is still very untapped in the world today.

The reason Miss Herrington asked us to speak to this committee is not really to talk about in a funny way the seals or the whales or other mammals because I think the morality and the horror involved in the killing of these animals has been very amply stated earlier this morning. I think it would be only redundant for us to repeat it.

What I would like to comment on for just a couple of minutes is the impact that all this has on the human being because this is our work.

I hope we know something about it. I have also, before we got into the business that we are in, I did teach college for 6 years and directed a testing and counseling center and in our work we have had the opportunity to test perhaps 8,000 or more young people so that some of the comments that I will make are based on scientific fact and not mere emotionalism.

I think what most importantly must be said here is that we frequently pay a great deal of lipservice to the question of what is the problem with youth, why is there the alienation, why is there the drug problem, why is there the so-called generation gap, the over-30, under-30 nonsense, and so on.

I think there is no simple answer to this except that the one world alienation perhaps sums it up.

There is an increasing, and I have noticed since my days as a student which seems like 4,000 years ago, but really was not that long ago and through my teaching career and my business career, there is an increasing feeling on the part of young people that our words and our actions are very simple, that our words, our national symbols, our reasons for being, our society, our purposes have been slipping.

What we say and what we do are two different things and so what we say to our kids sometimes lacks credibility.

For example, someone commented just the other day on the radio that how interesting it is when we sit down and give our youngsters a lecture on the evils of marihuana and other drugs, and the very lecturer is seen by that child waking up to a pep pill, popping three diet pills during the day, having a couple of tranquilizers to get through the day, the two or three straight-up martinis at 5:30 and the sleeping pill to go to sleep.

These are not drugs, you see. These are the adult versions of pharmaceuticals.

It becomes very hypocritical on the part of the youngster when we say do not use your drug, whether marihuana or LSD, but it is OK for us to use ours, but you cannot use yours.

In the same way, we say you shall not kill, but go ahead butchering animals and fighting wars and doing all the other things that seem naturally hypocritical to the youngster who has not worked out all of the rationalizations that we adults have managed.

What has this got to do with the Harris-Pryor bill? Very simple and rather obvious.

At some point, and I do not know what this point is, whether you members of this subcommittee and the full committee will grasp this opportunity to make this a point or not, I have no way of knowing, I can only hope but at some point if we are really to turn the situation around, if we are really serious about recapturing the American dream, about recapturing our young people, about again bringing unity and integration into our society, and I do not mean integration in the narrow sense, I mean in the total sense, we have just got to begin some place.

We have got to begin to show by actions, not by great words, that we really are serious about some of the things we say so that the young people can begin to identify with those things we do.

What a great beginning right here, because would it not be a nice thing if we can say at one point, "Look, it is not the American Government's policy to protect a specific profit motive at the expense of the total morality, but rather we are even willing to possibly give up a particular source of profit for a particular small company or a particular small group of people in order to really live by the concepts that this country was founded on."

We are really willing, if I may use a colloquial phrase, we are really willing to put our money where our mouth is.

This is the kind of thing that young people can get behind, can understand, because butchering animals to have somebody put on a sealskin coat cannot be justified by any young person or thinking older person, their sense of morality if he at all believes in the Judeo-Christian ethic.

We wonder, we look at the newspapers and see the butchery, and in the Harrison, N.Y., zoo, the children's zoo, a few days ago, what did these children do? They are now in Grasslands undergoing psychiatric examination. But, if you were to talk to them and ask them for the defense of their action, I wonder if you could really argue with them that they are wrong.

What they said is this—or what they could say if I were their attorney or their psychologist; I would say it like this:

> It was okay for us to trap the muskrat and trap squirrels and other small animals because, after all, our parents shoot them and trap them and kill them. We are just trapping and killing. Nobody bothered us about it. We kill the woodchuck all the time.
>
> So, what we did, we felt like doing something else, and we went into the zoo and we hacked up 11 rabbits and some pigeons and some chickens, and we took our tokens, you know, the rabbit ears, and the various other parts of the animals, and we wear them as our badges in the same way as our adult models have animals heads on the mantle and wear fur coats as a status symbol, and spend thousands of dollars, and say, look, I, too, symbolize an animal that was butchered.

Gentlemen, this may be rough to accept, but the morality is no different.

Psychologically, I can tell you, and I will stake my reputation on the fact, that psychologically there is no way to separate the two moralities.

There is no difference in butchering seals or in butchering rabbits in a zoo, or butchering people. There is really no moral distinction that can be drawn and no ability that anyone can bring to psychologically draw that distinction.

So, to say that these children were horrible, and they were, and they were absolutely horrible, and please do not misunderstand me, but to say these children were horrible and need psychiatric treatment, because of what they did in the Harrison, N.Y., children's zoo, if you are going to say that, you have got to say that it is equally horrible, equally immoral, equally illegal, equally psychologically and morally destructive to butcher helpless seals in the islands, not the oceans. There is no distinction.

You are taking about atrocity, you are talking about the lust to kill, you are talking about man over animals and the right to sway over the animals.

If you try to separate and make these distinctions, you are only going to further alienate our youth.

I say to you, and I do not want to prolong this because I know there are other witnesses who can talk much longer and much more knowledgeable than I in terms of the process of butchery and the horror of butchery, and the question of endangered species and so on. I will not go into these areas where I know much less than Miss Herrington and others. But, as a psychologist, I will tell you this, as someone who has worked with thousands of individuals, who has counseled them and tested them and run groups of training programs with them, I will tell you that in this bill you have far more at stake than you do the saving of animals.

You have a great deal at stake in the saving of our society right here in the United States, not worrying, gentlemen, about what other countries do, because I do think they will come along.

I do think we can exert leadership and get them to come along, but this is a step less important than stating our own society's affirmation of what we believe in, that we genuinely do not believe in killing; that we genuinely are willing to put our money where our mouth is, and we are willing for once to say it is policy, it is the law to do the right thing.

We are willing to say we are going to back it up with the muscle that the Harris-Pryor bill has to back it up with.

This will do more than all the drug lectures, the pious speeches, all the speeches and articles on the generation gap; this little action, I can guarantee, will do more than solve some of our basic youth problems than any direct assault on these youth problems ever did, because kids are looking for reality, not words.

Thank you very much.

Mr. Dingell. We are very grateful to you for this very helpful statement.

Dr. Greenberg. Mr. Chairman, may we, for the record, introduce a letter which I will not take the time of the committee to have read, but there is a letter from a 14-year-old boy that I think expresses this very strongly.

(The letter follows:)

Before we lived on the face of this earth, plants and animals coexisted in peace. It is true that nature was ugly at times, and yet there was never any suffering without purpose, without that ultimate purpose, survival. No animal killed out of greed or lost, none killed unnecessarily. And then there was man, who broke all the traditional rules. He killed for personal gain, and would flaunt animal skins as status symbols, to show he was king of the beasts, he could conquer all, he was the best, (because he had invented the gun, holding in his hands the very power to decide whether an animal should live or not. Actually, this was a sign of mans weakness, because he would never dare face an animal alone without his sacred weapon).

Man is very thick-headed in that he is not quick to learn from past experience. He must be shown over and over again before he realizes that he has made a mistake.

This unfortunate characteristic becomes quite apparent when man kills certain species of animals frequently, and then looks back to the horrible realization that there are no more left, (none left "to kill"). Once a species is extinct, there is no way you can ever bring it back. When I see seals and other fur-bearing creatures being killed off in masses; when I see over a thousand polar bears being murdered each year, (even though there are only 10,000 left), I just cannot sit back and let this cruelty and insanity continue. I know what the ultimate destiny of these creatures must be if something is not done immediately. Isn't it obvious by now, or must we again show our ignorance by continuing to support this barbarism? I certainly hope not.

I do not believe it is right to kill an animal unless it is a question of survival. Certainly people do not need fur coats to survive. The only one, in this case, who could not survive without killing animals is the Fouke Fur Company, because they live off dead seals. They are even responsible for the death of baby seals, although they refuse to admit it. When a baby seal is left motherless, it dies of starvation. How could anyone be so cruel? Seals have feelings, they love their babies, they care; but they're slaughtered. How would you feel if your family, your children, were slaughtered before your eyes? Hitler did it for his girlfriend Ilse Koch. And it's still being done by Human Hitlers, (or should I say inhuman Hitlers) who order and support the slaughter of nature's creatures. There is no difference, I swear, there just is no difference.

The Fouke Company has accused us of acting purely on emotion, instead of using logic. Don't believe it. We use both. The Pribilof Islands could be made into a wildlife sanctuary, with the Aleuts employed to protect the seals, rather than to murder them. And then there are Fouke's figures on seal population. Actually, the population has increased very little, if any, since 1911. And not only that; in the last ten years the birthrate has dropped 52%. Then the Fouke Company says the Harris-Pryor bill will leave the fur seal to open sea killing. Another falsehood. The bill calls for an international treaty ending the killing of ocean mammals, and bans importation of seal coats into the U.S. where the main market lies. And to top it all off, we were forced to pay two million dollars last year to support this barbarism, and this year we may have to pay even more. So much for not using logic.

As far as the polar bear goes, killing it is immoral, completely unnecessary, and foolish. If we go on like this, we'll only be adding another name to the long list of animals gone extinct at the hand of man. This reasoning applies to all ocean mammals.

So now it's up to you. You've been given some power to help change this world. Are you going to use it? Or are you going to show your foolishness again by supporting big business, and forgetting about what's right and what's wrong. Just put yourself in the animals' position, and imagine how you would feel if you were the ones being slaughtered.

By JIMMY BERENHOLTZ (age 14).

Mr. DINGELL. The Chair will announce at this time, because of the shortness of time, that we will afford everyone an opportunity to make additional insertions in the record, and the record will remain open for the period of time necessary to have that done.

Miss HERRINGTON. I would thank particularly Mr. Pryor for his great leadership and his firmness in holding to what is a real symbol of the new morality which must take place in this country.

I sincerely hope that this committee will report this bill out.

You know, we are not stuck on the particular wording of it, but the principles, the firm principles it must retain are the ban on the killing of ocean mammals by Americans, individuals or corporations, a ban on the importation of all products, raw or finished, from these creatures so as to remove the incentive for all other countries to kill.

Third, we take the leadership perhaps; maybe we are second with regard to some of these animals since Russia has protected the polar bear and porpoise since the mid 1950's.

Through all powers, which we have a great many, let us get the Harris-Pryor passed and into law.

Thank you.

Mr. DINGELL. Thank you very much.

Mr. PELLY. Mr. Chairman, can I ask a question, or offer a comment?

I am not rising up in support of the State Department. I do not know whether the State Department has ever received much in the way of praise from me, but I am concerned that if this treaty expires there will be a vacuum, and in that vacuum, nations like Japan who have no regard for conservation will step in and deplete the seal herd. And, therefore, I would simply ask you, Miss Herrington, to consider possibly changing your position to extending temporarily a treaty during the interval that we might be negotiating a new one, because I know what has happened with these nations which are not conservationists when, in their greed, they go out under international freedom of the high seas, and they just slaughter.

Miss HERRINGTON. Well, as I understand the amendment Mr. Pryor is introducing today, and we support that fully, the current treaty with Japan and Canada under which they get this 15 percent of our skins expires in 1976, and I believe Mr. Pryor's amendment now will say that in the absence of a new treaty with these countries to halt entirely the slaughter on land and at sea, then the current treaty shall be extended.

We do support that.

Mr. PELLY. The point is we cannot pass a law to stop the Japanese from taking seals on the high seas and, therefore, extreme care should be exercised, I think, in stating a position in order that there be some protection in the interim.

Miss HERRINGTON. Yes, we certainly do agree with you, that the killing of these animals in the open water is a very, very bad thing. I do not know how many people are aware of it, but our Government does a great deal of pelagic sealing.

In 1968, they managed to capture about 830 seals in the open waters. But, to achieve that, they shot, wounded or killed and lost over 3,000 seals.

We do agree that pelagic sealing is a disastrous thing.

Mr. PELLY. Thank you.

Mr. DINGELL. Mr. Goodling?

Mr. GOODLING. Thank you.

I realize we are short on time.

Miss Herrington, you supplied this committee with a whole volume, and I can tell you quite frankly the committee will not have time to digest this, but the staff will. You have cited a lot of facts and figures to support your conclusions.

If you have not already done so, and I do not know whether you have or not, I think you should provide this committee with the source of your information to back up your figures that you have given us.

Miss HERRINGTON. Yes, sir; I believe I have ready for the chairman of the committee further copies of all the comments referred to in my testimony, photocopies from Government reports, everything that I have quoted.

Mr. GOODLING. One other thing, Mr. Chairman.

The thing the committee will be interested in, I believe, is this: I refer to a letter that you wrote on June 11, 1971, to my friend, Bob Bell, editorial writer of the Pennsylvania Game Commission News.

I want to read the last paragraph of that letter, and I know the committee will be interested. It reads:

> Let us tell it like it is. Hunters are not only paranoid, they are miserable cowards.

Do you still support that statement?

Miss HERRINGTON. Let us put it into context.

This letter was in response to a charge in that magazine that, by having stopped a deer hunt, we had consigned the deer to starvation and death.

Mr. GOODLING. This was not taken out of context. This is the last paragraph of your letter.

I submit to you that if that statement is correct, very few members of this committee are capable of conducting a fair hearing.

I do not believe we are that type, frankly.

Miss HERRINGTON. I think even man is a little bit under the gun—maybe that is a good word—in the face of man's modern weapons.

It is not what you really call fair play. It is not a sport to kill animals with weapons.

Mr. GOODLING. I have a few more questions I would like to ask, but I will yield at this point.

Mr. DINGELL. Mr. McCloskey?

Mr. McCLOSKEY. Thank you, Mr. Chairman.

Miss Herrington, there is one problem that bothers me, the morality issue that has been raised by the witnesses.

Will you comment on the difference between the killing of seals as we have seen in this very impressive film and what is almost a national ethic in this country of having 4–H clubs raising little lambs to be killed at slaughter?

What is the difference?

Miss HERRINGTON. One difference is while we have made captive slaves of livestock for our own survival purposes, I think everyone is probably a meat-eater.

We do need these animals for our protein diet, at this time.

You cannot justify the slaughter of a seal. No one can eat it, not even the native Aleuts, with the mercury in their liver.

These are strictly frivolous products. No one needs the sealskin coat.

While we can breed at will livestock in a variety of so-called game animals, no one in the world can breed a whale, sea otter, or any of these other creatures.

Our morality has to do with our own survival, the interrelationship of all lives and the ocean.

If we want to concede our right to eat fish, no one can say the viability of the oceans is not dependent upon her mammals in sufficient numbers. It is a fact that the salmon follow the seals to their breeding ground, and when the North Koreans fish close to the Russian islands, the Russians complained this should be stopped. They are disturbing the seals. They are undoubtedly taking seals and salmon in their nets.

The porpoise follow the tuna.

Mr. McCLOSKY. I do not think you understand my question.

Is the killing of animals, or the exercising of domain over them immoral? And, therefore, does the law need to be changed?

Miss HERRINGTON. In this distinction, we are attempting to stick with the ocean mammals.

Mr. McCLOSKY. You do not raise the moral issue?

Miss HERRINGTON. This is the whole basis of our point, the immorality of brutality, the slaughter for frivolous purposes, which is rendering these animals extinct.

Mr. McCLOSKEY. That is the true point of your testimony, is it not, the slaughter for the purpose of skins that is not justified?

Miss HERRINGTON. It is not justifiable ecologically because we do not know enough about the life of the oceans.

Mr. McCLOSKEY. No further questions.

Mr. DINGELL. Mr. Potter?

Mr. POTTER. Two very brief questions, and you do not need to respond to them right now.

On page 10 of your testimony, you indicate that the pelagic sealing by Interior involved the shooting and capturing of 824 seals in 1968, and another 3,586 were lost.

Would you supply the committee with the documentation of that?

Miss HERRINGTON. I have the photocopy of the report with me.

Mr. POTTER. The other has to do with the statement on page 19. You indicate that the State of Oregon employs a man to shoot all seals on sight.

I would very much like to have whatever evidence you can supply to the committee on this point at your convenience.

Miss HERRINGTON. We will be glad to do so.

Mr. POTTER. That is all.

(The information referred to follows:)

FISH COMMISSION,
Portland, Oreg., March 9, 1971.

MRS. A. BURKHOLDER,
Portland, Oreg.

DEAR MS. BURKHOLDER: You recently wrote to us concerning the seal control program of the Fish Commission in the Columbia River. This program is authorized by ORS 506.341. This statute requires that the commission shall pay as bounty not less than $5 nor more than $25 to any person who delivers to it within 60 days evidence of a seal having been killed. It also provides that the commission may enter into an agreement with any person for the purpose of taking seals. In 1970 the Fish Commission at a public hearing acted to reduce the bounty payment to $5, the minimum amount that can be provided consistent with the law. It did not at that time attempt to change a contract with the seal hunter which had earlier been awarded. This contract provides that the commission pay $40 per day to an individual to hunt seals and harass them in the Columbia River so that they leave the river during commercial fishing seasons.

The public meeting on February 22 was to consider awarding a seal hunting contract for 1971. At the meeting no individuals appeared to oppose the killing of seals. Because the commissioners were concerned about the attitude of the public, they delayed making a decision at this meeting. No contract has been awarded to date.

Thank you very much for sending us your comments on the seal control program in the Columbia River. We will bring your letter to the attention of the commissioners.

Sincerely,

THOMAS E. KRUSE,
Assistant State Fisheries Director.

EXHIBIT Q—DEPARTMENT OF COMMERCE SPECIAL SCIENTIFIC REPORT—FISHERIES No. 617 "FUR SEAL INVESTIGATIONS, 1968" PUBLISHED DECEMBER 1970

We saw considerable numbers of seals in the Bering Sea along and outside the Continental Shelf from Unalaska Island east to Unimak Pass from 1 to 15 August.

The following surveys are not shown on any of the figures:

Direction and locality	Seals seen (number)	Date	Distance	
			Km.	Miles
St. Paul to St. George	20	Aug. 12	64	(40)
56 km. (30 miles) south of St. George to 111 km. (60 miles) northwest of Cape Cheerful, Unalaska Island (just off the Continental Shelf between Pribilof Islands and feeding grounds near eastern Aleutian Islands)	93	Aug. 15	55	(30)
Along Continental Shelf between Sanak Island and Shumagin Islands	23	Aug. 18	230	(124)
Past Chirikof Island	5	Aug. 19	185	(100)
Toward town of Kodiak	8	Aug. 20	148	(80)
Eastward from Kodiak	0	Aug. 22	185	(100)
Southeastward in Gulf of Alaska	0	Aug. 23	222	(120)
137 km. (74 miles) west of Cape Edgecumbe	1	Aug. 24	185	(100)

ABUNDANCE

The numbers of seals sighted, collected, wounded and lost, and killed and lost were 1,078, 374, 39, and 26 off Washington and 1,509, 456, 27, and 78 in Alaska waters. Tables C–12 and C–13 give numbers and percentages of seals in these categories for 1958–68.

Tables C–14 to C–17 show the number of seals seen and collected off Washington and in Alaska waters in relation to effort by 10-day periods.

Seals were seen in groups of one to nine animals off Washington (table C–18) and in groups of one to five in Alaska waters (table C–19), Seals travel alone more frequently in the spring and summer in Alaska waters than in winter off Washington.

Incomplete data on six seals taken in Alaska waters are not included in any of the following tables.

AGE AND SEX

Seals collected at sea are considered to have passed into the next higher age group on 1 January (Standing Scientific Committee of the North Pacific Fur Seal Commission, 1963). The ages of seals collected in November and December 1967, however, were increased 1 year to permit comparisons with seals taken after 1 January 1968. Thus, seals of the same year class were given the same age in all tables in this report.

Table 42 gives the age and sex of seals collected off Washington and Alaska in 1967–68. About 50 percent of the females killed were from 1 to 7 years old.

Seventy-four yearling seals (1967 year class) were collected January-February 1968 for continuing studies of these animals during their first year of life, a period when fur seals suffer the greatest mortality. For example, general body condition was appraised by measuring the subcutaneous layers of fat at their thickest points over the sternum and ventral to the pelvic region (table C–20). Additional information on these yearlings is given elsewhere in this report.

TAG RECOVERIES

In 1968, we took 7 males in ages 2 to 16 years and 31 females between the ages of 1 and 16 years that had tags or other marks (table 43). No Soviet tags were found attached to seals collected in 1968.

LENGTHS AND WEIGHTS

Mean lengths and weights are given for pregnant, post partum, and nonpregnant females collected in 1967–68 in tables C–21 to C–26, and for males in tables C–27 and C–28.

Sex, length, and weight were not determined for two very small embryos, and the data have not yet been obtained for 17 fetuses on loan. Crown rump rather than total length measurments were taken from 24 male and 33 female fetuses because of their small size, and these fetuses were weighed in the laboratory rather than at sea because accurate weights could not be obtained on a rolling and pitching vessel. Table C–29 gives crown-rump length and weight after preservation in formalin.

Table C–30 shows measurements of total length and of the weight of unpreserved fetuses.

REPRODUCTION

Table C–31 shows the reproductive condition of female seals collected by month in 1967–68. Five primiparous 4-year-olds were the youngest and one multiparous 21-year-old was the oldest among pregnant seals collected in 1967–68.

The pregnancy rates of fur seals collected in the eastern Pacific Ocean from 1958 to 1966 were tested to see if they differed by area and year of collection. The largest numbers of seals were collected off California (36.5 percent) and in the Bering Sea (28.4 percent).

Mr. DINGELL. Miss Herrington, the committee is grateful to you for your very helpful presentation this morning.

There was a great deal of work in your preparation and we are very grateful to you.

Miss HERRINGTON. Thank you for the opportunity to speak for the people.

We have a group of petitions here in large numbers, perhaps in the thousands, and we would like to present them to the committee.

I also have numerous fact sheets and other statements in support of our position.

Mr. DINGELL. Very well. If you will deliver them to the staff, the Chair will direct the staff to review those for purposes of possible insertion into the record.

(The documents referred to are in the committee files. A few representative items follow:)

FACTSHEET ON THE PRIBILOF SEAL "HARVEST"

1. The Commerce Department claims that the size of the Pribilof seal herd has increased from 200,000 in 1911 to about 1.3 million today. It is alleged that this is the herd's optimum size and that a much larger herd would result in overpopulation and starvation.

In fact, the natural size of the herd is over 5 million, according to an official account in the Encyclopedia Americana, Volume 24, pp. 480–85, written by Seton Thompson, Chief, Division of Alaska Fisheries, U.S. Fish and Wildlife Service. In 1948, this herd numbered about 4 million. Thus, the 1.3 million figure, even if accurate, represents a depletion of about 75%. There are also strong indications that the 1.3 million figure is grossly inflated, particularly since it includes hundreds of thousands of baby seals, 85% of which die before they reach 3 years of age. The herd is now in such serious trouble that this year the quota was vastly reduced from 60,000 seals in previous years to about 42,000. Still, only 32,000 seals were available for "harvesting", 25% below the quota's allowance. There seems little doubt that, with the Commerce Department's present management policies, the herd is headed for extinction.

2. Commerce claims that only "surplus" bachelor seals are killed and that females and pups are "not molested". This is constantly stressed in the Department's press and information releases.

Actually, in recent years, close to a quarter of a million females were harvested, almost every one of which was either pregnant or nursing a pup. When a nursing female is killed, its baby starves to death. Thus, 250,000 babies have also been indirectly killed. This is why the herd is presently in such a serious state of depletion. As late as 1968, some 13,000 female seals were killed, over 11,000 of which were known to be nursing mothers. (See attached documentation from U.S. Department of Interior for 1968).

3. Commerce claims that the Harris-Pryor Ocean Mammal Protection Act will mean the extinction of the Alaskan fur seal because the 4-nation treaty banning pelagic sealing will be abrogated by the U.S.

Just the opposite is true. The Harris-Pryor Bill maintains the current treaty while giving the State Department the mandate to bring all other nations into a more extensive treaty which would protect not only the fur seal but all other ocean mammals as well. At the same time, the Bill gives special recognition to our obligations under the North Pacific Fur Seal Convention and provides for Canada and Japan to continue to receive their 15% each of the annual quota, or a commensurate financial compensation. The only change is that the 70% "taken" for the U.S. market would not be killed. This can be done while maintaining the treaty intact until 1976, after which time it is scheduled to expire under the original terms of the agreement.

ANNUAL REPORT OF SEALING OPERATIONS, 1968, PRIBILOF ISLANDS, ALASKA

PREPARED BY STAFF OF MARINE MAMMAL RESOURCES PROGRAM, DECEMBER 31, 1968

HARVEST OF FEMALE SEALS AND PRODUCTION OF FEMALE SEALSKINS

	St. Paul Island	St. George Island	Total
Commercialized during regular season, June 26–Aug. 5	1,855	170	2,025
Commercialized during fall season, Aug. 6,–16	8,469	2,601	11,070
Total commercial female sealskins	10,324	2,771	13,095
Rejected because of poor quality	220	20	240
Total harvest of female seals	10,544	2,791	13,335

SEALSKIN CURING OPERATIONS

At St. Paul 49 men were employed in the skin-curing plant and 6 on carcass disposal; 17 performed both functions at St. George. Three blubbering beams were removed on St. Paul to install the experimental fleshing machine. Pre-season calculations indicated as large a harvest as the previous year. There was only one reduction in manpower on St. Paul but a larger reduction on St. George from the previous year. Minor adjustments were made in employee assignments to accomplish the skin-curing. Robert Booth, an employee of The Fouke Company, was assigned for a brief period to St. Paul as a technical specialist and quality control inspector.

SOURCES OF RECRUITMENT FOR SKIN-CURING WORKERS

	1964	1965	1966	1967	1968
Pribilof Islands	24	27	36	37	24
Aleutian Villages	31	24	18	4	4
Mainland Alaska	2	7	15	27	32
Contiguous 48 States	24	18	3	8	[1] 12
Total	81	76	72	78	72

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[1] 2 were former Pribilovians now residing in Seattle.

EXHIBIT O—FISHERIES NO. 617 "FUR SEAL INVESTIGATIONS, 1968," PUBLISHED DECEMBER 1970

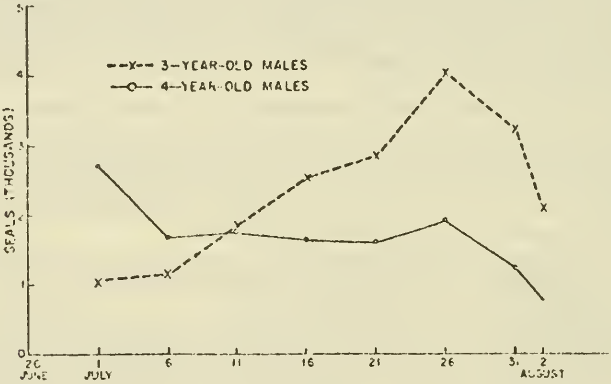

Figure 3.--Kill of 3- and 4-year-old male seals, St. Paul Island, 26 June to 2 August 1968.

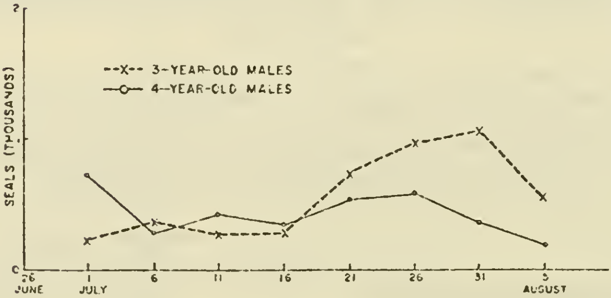

Figure 4.--Kill of 3- and 4-year-old male seals, St. George Island, 26 June to 5 August 1968.

* * * possible magnitude of error in the number of males of each age killed in 1968. Differences between adjusted and nonadjusted age compositions were about 1 percent each for 3-, 4-, and 5-year-old males and 17 percent for 2-year-old males (table 2). The adjusted number of 2-year-old males was less than the

nonadjusted number. Adjusted numbers of seals killed are not used in any of the calculations in this report because the data are similar for ages 3, 4, and 5, and it is not known if the adjusted or the nonadjusted age composition is more representative of the true age composition.

FEMALES

The 13,335 females killed on the Pribilof Islands in 1968 were considered excess to the number needed to maintain the production of pups at the present level. St. Paul Island contributed 10,544 females, and St. George Island, 2,791. Right upper canine teeth from 30 percent of the females killed were used to estimate the age composition of the total kill (tables A–5 to A–12).

TABLE 2.—UNADJUSTED AND ADJUSTED KILL OF MALE SEALS, PRIBILOF ISLANDS, ALASKA, JUNE 26 TO AUG. 5, 1968

Age (years)	Unadjusted kill (number)	Adjusted kill (number)	Difference (percent)
2	2,106	1,802	+16.87
3	23,149	23,339	−.81
4	16,959	17,099	−.82
5	1,948	1,923	+1.30
Total	[1]44,162	[1]44,162	

[1] We did not include 130 6-year-old males taken on the Pribilof Islands June 26 to Aug. 5, nor 307 males killed on St. Paul Island Aug. 3 and 5 because the data for these seals were incomplete.

TABLE 3.—NUMBER OF FEMALE SEALS TO BE KILLED AND THE NUMBER ACTUALLY TAKEN DURING A SPECIAL KILL OF FEMALE SEALS, PRIBILOF ISLANDS, ALASKA, AUGUST 1968

Island and rookery	Quota	Actual kill	Island and rookery	Quota	Actual kill
St. Paul Island:			St. George Island:		
Northeast Point	2,129	2,829	Zapadni	800	854
Tolstoi-Zapadni Reef	1,022	962	North	1,262	1,032
Zapadni-Little Zapadni	1,874	2,137	East	615	513
Reef	1,789	1,417	Staraya Artil	400	219
Lukanin-Kitovi	596	592			
Polovina	1,107	1,374	Total	3,077	2,618
Total	8,517	9,311			

The kill began about 6 a.m. Monday through Friday on St. Paul Island and about 9 a.m. Monday, Wednesday, and Friday on St. George Island. All females killed were taken from hauling grounds, and all females in the drive were killed regardless of age or size. When the kill of males ended 2 August on St. Paul Island and 5 August on St. George Island, 1,233 and 173 females, respectively, had been taken. The relative size of each rookery was used as a guide in killing the remaining 11,594 females needed to achieve a quota of 13,000 (table 3). A special effort was made not to exceed the quotas on Reef, Polovina, and Staraya Artil, three rookeries where females are extremely accessible.

Table 4 shows the kills of females from year classes 1943–67.

AFFIDAVIT

In July of 1970 I, Thomas S. Bywaters, with Victor Losick went to the Pribilof Islands to record on film the seal slaughter which is carried out annually by the Bureau of Commercial Fisheries.

We spent ten days on St. Paul Island, observing the horrible massacre and the life of the Aleut native colony on the Island.

While on St. Paul, we filmed the brutal, inhumane killings, the rookeries where the baby seals are born and the bulls and females breed, the town and the blubber plant. We were not allowed to film interviews with the natives nor with the Government employees (although an NBC crew which came after us was given carte blanche to film anything and everything).

THE SEALS

Each morning during the killing season, the animals are driven inland for the kill. The men walk them a great distance. Great clouds of steam rise from their bodies. From time to time a seal falls in a quivering mass, exhausted. At the end of the long drive, the animals are broken into pods of 5 or 6. A man rattles a tin can. The seals raise their heads in panic. Crack, crack, crack. Other men smash their skulls. Despite Government claims that the animals are quickly rendered unconscious, time after time I saw the animals hit again and again because one blow had not been sufficient to stun them. The seals are smashed in the face, the flippers, the back. Eyes pop out of skulls and the animals shriek in pain . . . flopping and twisting in the tundra for an excruciating amount of time until he is smashed again into unconsciousness. The stickers come next. They plunge a knife into the heart area and often a still beating organ spills out of the body.

Then the strippers attach heavy metal clamps and yank the skin from the steaming body. This goes on until the quota for that day is met.

Some of the men who worked in the blubber factory told me that when we were not present at the kill the men killed much higher quotas, and also they killed a large number of female seals (although the Bureau of Commercial Fisheries claims that this does not happen).

THE NATIVES

The Aleut Natives on the islands live in a state of semi-slavery. The sealing season lasts only a short time each year (6–9 weeks). The remainder of the time the warm, friendly people are forced to simply exist on this barren remote island. They were originally brought to the Pribilofs by the Russians as slaves and, apparently, when the United States bought Alaska in 1867, we also bought the people. They told me that they had been warned not to hurt us because that would make their situation worse, but they were told not to appear in front of our cameras or to cooperate with us in any way.

They are given a limited amount of beer (no liquor is allowed) and they manage to maintain a state of semi-stupor a great deal of the time. In the early morning on the kills, many of the man gag and vomit on the killing field. I was reminded of the Indian and the fire-water syndrome, where the subservient natives are kept in hand by keeping them slightly drunk.

Several of the men told me that they did not want to kill the seals, but that they had no other way of making a living. They asked me why the United States Government didn't find something else for them to do, so that they could be employed year round and would not be forced to carry out their terrible task. They asked also why the Government shipped the skins half-way around the world to the Fouke Fur Company in Greenville, South Carolina, for the final processing of the skins when there were able men on the islands to do that work.

One claim that the Government makes is that the Natives must kill the animals to eat them. In the ten days that I was there, I did not see *one* Aleut Native take *one* seal carcass home to eat. (The carcasses are ground up in a plant on the island to make food for mink ranches). There is a well stocked supermarket on the island with all of the frozen foods and merchandise that can be found in any small American town in the country. All of these foods are brought to the island and sold for money or food stamps.

The young people I spoke to said that they wanted to get out as fast as they could. They are all sent to the mainland (Alaska) for their secondary schooling, and none of those I spoke to wanted to come back to live in St. Paul.

From any standpoint—moral, pragmatic or financial—there is no reason for the Federal Government to maintain or permit this operation.

The slaughter of the seals is horrible enough, but the degrading exploitation of the Aleut people is intolerable.

I have film of the seal slaughter which I would very much like to make available for viewing whenever it might be needed.

Signed: THOMAS S. BYWATERS.

STATEMENT OF RONALD B. DRUMMOND, CAPISTRANO BEACH, CALIF., IN SUPPORT OF THE OCEAN MAMMAL PROTECTION ACT (S. 1315, H.R. 6558)

One early morning, forty years ago, I found, washed ashore on the beach, a wounded mother sealion and her baby. The mother had been blasted right in the face with a shotgun. Her eyes were torn to shreds and of course she was totally blind and would have a long lingering suffering death. Fortunately I was able to very quickly end her misery, and I adopted the baby. I have never known a more delightfully intelligent and affectionate little friend. He became the mascot of the Los Angeles lifeguards and was known and admired by thousands of people. He loved to surf with me, and when I body-surfed large waves he would fall on the curling breaker and ride it all the way to shore right beside me.

Periodically ever since then, I have been finding dead or wounded seals and sealions and their sad and trusting babies. This may sound incongruous for a 230 pound ex-amateur wrestler, but I have definitely found that if I softly sing Brahm's lullaby and make no sudden motions while I drift very slowly in my canoe toward all sorts of wildlife, I can usually drift right up to them and make friends. However, the following experience is an example of why I have been deprived of this sort of pleasure.

I was paddling a kayak through the kelp beds off Salt Creek, in Southern California, when, a quarter of a mile away, I noticed a bump on a log that was floating in the thick kelp. Soon I saw that the bump was a very young baby harbor seal. In less than half an hour I had slowly drifted in a very light breeze to the log, and the baby seal, that had slid into the water, was nuzzling my hand, and I was scratching its head. These baby harbor seals have such cute faces, with the black circles around their eyes, and their sweet affectionate expressions, that you can't help falling in love with them. It was playful and swam around my hand in the water, and finally slid up on the deck of my kayak right in front of me where it enjoyed having me pet and scratch it.

Then suddenly a large harmless California Gray Whale came up and loudly blew, about fifty feet away. They are curious and often come close to investigate and sometimes swim right under me—six inches from the bottom of my kayak. I suppose the seal's instinctive fear of killer whales caused it to take off like a torpedo in a series of porpoise dives along the surface straight toward shore. I lost sight of it and figured I would never see it again, and paddled farther up the coast, surfed in my kayak for an hour and then on my back paddled alongside the log. Two feet down in the clear water I saw a large rare bright green crab on a stalk of kelp and decided to take it home and photograph it to add to my color movie on local sea life. With my hand in the water I was surprised to suddenly have it nudged again by the baby seal. I played with it again and finally paddled along the coast for home, and the baby seal must have been lonesome for its mother, for it followed me.

I shall never tame another seal, because it gives them confidence in the kindness of humans, and they swim near yachts and commercial fishing boats. I found the baby seal's body next morning on the beach with a bullet hole through its side.

This is only one of hundreds of such cases of ignorance and cruelty. Firearms are carried on almost all commercial fishing boats and many yachts. There is no valid reason for this. I have done commercial fishing and it is annoying when seals interfere, although I don't consider their interference sufficiently important to warrant the murderous ethics of the fishermen. I was almost always the first one to reach the gun, and the others couldn't understand why I always came so close, but never managed to hit a seal. The shot always frightened them away, and I believe a stone thrown at them would be just as effective.

Yachtsmen have no reason to have firearms aboard. They are used only to sadistically shoot any living creature just for the fun of killing. San Juan Rock, near where I live, would normally have many sealions on it, but you seldom see more than two or three young ones that haven't learned to fear man. I often see the rotting bodies of sealions, pelicans, cormorants, seagulls, etc., on the rock—shot just for fun by passing yachtsmen and commercial fishermen.

Intelligent killer whales have never been known to harm a human being. One once playfully tossed a skin diver out of the water just as they do with their own calves. Of their own free will they have aided humans in their work. A baby killer whale was shot and killed from the bridge of a tuna clipper. The mother charged and rammed the clipper. Can you blame her? I would as soon shoot my gentle intelligent Newfoundland dog.

The skipper of a tuna clipper I fished on delighted in shooting porpoises as they played so beautifully in front of the ship. Bang and the graceful motion stops dead; and the body sinks slowly in the clear blue water in red clouds of blood.

It has been my experience that the more study and mature understanding a man has of wild animals, the more sympathy and consideration he has for all wild life. Often publicity misrepresents wild animals. I have slowly approached and petted absolutely wild skunks. After spending several years in Africa making moving pictures of almost all the larger African animals, the wanton and cruel slaughter of these wonderful animals disgusted me. Would you like to see a man try out his new elephant gun by shooting at a dainty gazelle, and see both its front feet shot off, and then it bounding away on the stumps? Or see a baby zebra following its wounded mother whose intestines were dragging on the ground? Imagine the suffering of badly wounded intelligent elephants. I often ate my lunch beside a picturesque hippopotamus pool deep in Portuguese East Africa and watched a happy family of one big bull hippo, three cows and three playful calves. Can you imagine calling a hippo frolicsome? The three calves played tag and leaped clear out of the water over the backs of their parents. I felt that I knew each hippo by its first name.

I approached this pool one day and met a newly arrived customs official who proudly boasted that he had just shot seven hippos. In the small pool they couldn't hide, and he had blasted the heads of all seven when they had come up to breathe, and simply left them there to rot.

When I got home a Hollywood film producer wanted me to go with him to film African animals. He said, "We'll get so far away from any game wardens by helicopter that we can just slaughter all the animals we want to our heart's content."

After living continuously out of the United States for five years I experienced a wonderful feeling of patriotism and close comradeship toward all my fellow Americans. It was bitter to soon realize that because of lack of training and discipline in all the various phases of good character, the United States had become a much less pleasant place in which to live. Selfishness and greed are among our worst characteristics. The lust for more and more money does away with preserving our precious natural environment which includes the wildlife of forests, our beautiful natural rivers and seashores.

STATEMENT OF MR. AND MRS. EDWARD SILVA, OAKLAND, CALIF., IN SUPPORT OF THE OCEAN MAMMAL PROTECTION ACT (S. 1315; H.R. 6558)

Our nation of television viewers have been shocked at the Pribiloff seal massacres. They saw and heard the clubs crack on helpless seals as they were battered. Hundreds of thousands of school children (as well as adults), have seen this! They watched with tears streaming down their faces (even teen-age boys considered "tough"), and they care so much they asked what they could do to help. They told their teachers they wanted to do something to stop this.

Can we comprehend that what we viewed in a few minutes, takes place all day long from June well into August? That as many as 2,500 are killed in any given day? That the torture-skinning takes place while some are still alive, hearts still beating? Who would permit his own children to see the bludgening of the gentle seals and still wonder how they would want one to vote on a law that can help them?

Regarding whales: a reporter who saw a whale-ship-killing turned her memory back to the sight, and told the television audience: "They cry." Yes, they suffer as we would, with a harpoon through our body. Merciful death does not always come soon. Dr. H. R. Lillie, a physician who worked with the British whaling fleet said the method still used in killing whales today is horrible. He witnessed where five hours, and nine harpoons, were required to kill a female Blue Whale in advanced pregnancy. Three species of whales are being killed in our own waters by Whaling boats operating from Richmond. California, and all three are on the "endangered species list."

Are we generally aware that seals, whales, otters, walrus, and the others, *serve man* by making our waters viable—livable—by keeping the *food chain* in balance? This is a vital service to everyone on earth.

Mammals do not deserve mass extinction by man, yet they are being exterminated, mercilessly. Many will vanish forever if we do not halt the killings without delay. In addition to this, inflicting agony on these creatures—the brutality involved in the maiming and killing—has shocked the country, and this shock is growing. Overwhelming response to television documentaries on this subject also tell of the widespread desire to end this slaughter.

Will you help to end this by giving your "yes" vote to the Harris-Pryor Bill No. S. 1315; H.R. 6558? Will you speak out for it, and help it become a law? We are deeply concerned.

It may be of interest to know that it takes ten years to produce one sperm Whale. Male and female whale each reach maturity at about age 9. A female in the North Hemisphere may give birth one year and four months later. She then nurses her calf for two years. Consider! Over ten years for one sperm whale birth! And this is only when favorable conditions prevail to let a male and female of maturity, meet in the vast seas, in spite of the mass slaughtering of whales. There must be nine years in which male and female escape slaughter if they are to BEGIN the cycle for a single calf-whale to be born! This is why every killing is a potent threat to the survival of this great mammal.

The author of "The Year of the Whale", Victor Scheffer, gave this information in this book. He worked primarily with mammals, and was 31 years a research biologist with the U.S. Fish and Wildlife Service, receiving the Department of Interior's Distinguished Service Award. He has commented in his book: "The problem of "humaneness" in the chasing and killing of whales troubles me." It troubles so many of us! Finally, there is a way that can help! Please help this Bill to become a law.

STATEMENT OF A. M. DOBELL, CHAMBLY, QUEBEC, CANADA

The Ministry of Fisheries of Canada has appointed a "Committee on Seals & Sealing" in order to enable members of the general public to make their views known on the subject of the annual slaughter.

Presumably the committee's findings will either cause the Government of this country to stop the annual butchery of newborn seals, or, alternatively allow it to continue due to lack of public demand for its cessation.

It follows, therefore, that the committee must satisfy itself on the prime question of whether or not this annual organized slaughter of helpless, newborn seals would constitute an unacceptable outrage in the minds of a majority of Canadians, were they all, hypothetically placed in the position of on-the-spot observers of the slaughter in all its detail within their own country.

The second factor which they will presumably consider is whether or not the annual slaughter results in the fulfilment of any essential requirements of Canadians. Obviously, for instance, the consumption of meat and poultry is considered essential, hence the appropriate domestic animals are bred, fed and hopefully, humanely killed, so that a case could not easily be made to outlaw the abatoirs.

Contemplation of question #1 affords quite an exercise for imagination in the realms of the hypothetical. Imagine some 20 million Canadians assembled in grandstand fashion, somewhere in the Gulf of St. Lawrence, or in the Canadian Arctic, in April;

There is a colony of seal families—hundreds of the mother seals ministering to their helpless, fuzzy newborn offspring in a manner suggestive of the similarity with which nature endows most of her more intelligent creatures, including humans, with that protective mother instinct.

It may be that many in the large audience begin to warm to these pleasant, harmless seals, as they appear to rejoice, as seals do, in their own kind of domesticity and freedom. Some, in the grandstands might even sense a sort of sympathetic identification with these creatures as having been given life from a source common to their own, and common instinctive emotions, albeit on a lower scale.

These works of nature, thus manifested might incline others in the audience to a realization that they, being supposedly higher on the scale of nature's heirarchy, might have been intended more to protect and preserve rather than to loot and pillage and mindlessly extinguish. Rarely does the regular artificial urban existence of the majority give rise to such enobled thinking being applied to a herd of seals, but many in the audience might at this point find pleasure in the thought that within their country in its vastness, there are still creatures such as these—free and graceful, and contributing in their own way to nature's balance and thus to the general well-being of all creatures, humans included.

And while in this enobled state of mind, the sound of an approaching spotter aircraft is hardly welcomed; even less welocme might be the sight of the sealing ships disgorging men armed with clubs and knives, advancing menacingly toward the peaceful seal families—the adult seals showing apprehension and alarm.

What happens next might be carried out in a hurry, but still not fast enough ever to erase from the memories of the observers the sickening sight of the now frantic adult seals and their helpless newborn in the midst of the savagery of an attack by what are evidently brutish, mindless killers. The mother seals dart this way and that in frenzy; they are not able to defend their young which are being bashed, skinned while still writhing and whimpering, and left quivering, blood-soaked, on the ice. The killers withdraw with skins and return for more. The rightful owners of the skins being reduced to grotesque heaps of gore, are still recognized as their own by the mothers, who, eventually, when the coast is clear of killers, emerge from the blood-red water and turn the corpses over in instinctive hopes that there might be some life left.

If this audience can be persuaded to remain in their seats for an hour or so longer, they might contemplate the mother seals, with their noses caressing the gory remains of their young in an agony of anguished grief. Here, once again many of the watchers might identify with the stricken seals in a sensation familiar to many—bewildered, anguished grief.

Can it be possible, many might wonder that our human species can thus rape nature without nature's retribution in some form or other?

And what small percentage of these Canadians would in the opinion of the Committee on Seals & Sealing come down off their grandstand with anything other than a colossal loathing of the entire disgraceful performance, and, possibly a sense of guilt at having been, for so long, blissfully disinterested in the total implication of cruelty on so monstrous a scale within their own country.

There will always be the small percentage of unaffected . . . the ignorant, the moronic and simple minded—who exist smugly under the delusion that animals other than humans, no matter how high on nature's intelligence scale, have no feelings, and hence are unworthy of protection from outrage or extinction ; any such concern for animals being, by some twisted logic of their own, construed as a denial of the need to assist human beings anywhere afflicted in mind, body or estate. "Not interest in animals as long as there is a single starving human being"—and worse "All the animals in the world are not worth a single human life." These frantically foolish cliches show an obvious ignorance of the disastrous ultimate doom which would soon be inflicted on their precious "human only" world if nature were to get so far out of balance.

Considering the second question of what "benefits" arise from the scenes described above, the primary beneficiaries must presumably be the killers themselves; after all they must undergo considerable risk and discomfort in order to bring about a club to face contact with a newborn seal. The answer seems to be that these people derive enough money from the sale of the skins to the nonessential luxury fashion market to augment the inadequate incomes obtainable from their other pursuits—mostly fishing. Can the problem be that simple? If we can pay farmers not to grow wheat in the interests of price stability, certainly we could pay fishermen not to bash baby seals to pulp in front of their parents, in the interest of "humanity".

Mr. DINGELL. Our next witness is Mr. Judson Vandevere, Friends of the Sea Otter, Big Sur, Calif.

STATEMENT OF JUDSON E. VANDEVERE, BIOLOGICAL INVESTIGATOR, HOPKINS MARINE STATION OF STANFORD UNIVERSITY, PACIFIC GROVE, CALIF., ON BEHALF OF FRIENDS OF THE SEA OTTER, BIG SUR, CALIF.

Mr. VANDEVERE. I have submitted my testimony to your reporter, Mr. Chairman.

Mr. DINGELL. We will see that your testimony is placed in full into the record, as though you had read it.

We recognize you for any additional comments you wish to make.

Mr. VANDEVERE. I have studied the behavior of the southern sea otters in the course of my naturalist's duties during eight summers at Point Lobos State Reserve (1959–66). Research grants to the University of California at Santa Cruz and Hopkins Marine Station of Stanford University have enabled me to continue my studies throughout their range on weekends from October 1968 to July 1969, and from then almost daily to the present time.

The California Department of Fish and Game has counted only 1,040 in the southern sea otters' very limited 160-mile range; the only naturally occurring sea otter population in the Western Hemisphere south of Alaska. Only 33 years after its exciting rediscovery, the rare southern sea otter, opening its polluted shellfish with pop bottle, rock, or beer can for tool, is faced with new threats to its survival. In the southern portion of their range, otters are occasionally shot and, with increasing small craft traffic, more are being fatally injured in boating accidents.

The City of Monterey, Calif., expects to quadruple its accommodations for boats, thanks to $300,000 in Federal assistance, thus greatly increasing the threat of boating deaths. From my analysis of the data concerning 111 recovered carcasses, fatal boating accident injuries appear to be the greatest single cause of death.

Female sea otters continue to bear pups within sight of oil tankers whose frequency of passage and potential for spills increase yearly. Completion of the controversial Alaskan pipeline will compound this threat.

One of the sea otters killed by the three commercial abalone divers, who were sentenced last year, contained in its fat 33 p.p.m. total DDT residues. Although they were nearly exterminated for their furs, not their meat, analytical data from many otters reveal that their tissues greatly exceed the 7 p.p.m. considered unfit for human consumption.

The fate of the California and Florida brown pelicans is well known. Large numbers of aborted California sea lions were discovered in May 1970.[1] Karl Kenyon of the Fish and Wildlife Service reported 1,200 p.p.m. DDT in one sea lion pup on San Miguel Island.[2] Recent studies have indicated that DDT can cause reproductive damage in newborn mammals.[3]

Recent public health awareness of chlorinated hydracarbons, such as DDT, and heavy metals, such as cadmium and mercury, appearing in many species of marine life has resulted in great economic losses to some affected commercial fisheries.

For example, the jack mackerel fishery in southern California was condemned in 1969 because of high DDT levels and 89 percent of the swordfish were condemned this year because of high mercury levels, as well as approximately 2 percent of the tuna.

At the present time, Dr. John Martin and George Knauer at Hopkins Marine Station, Pacific Grove, Calif., are determining heavy metal levels in plankton, surface and midwater fishes, cephalopods and marine mammals inhabiting the central and southern California current regions.

Sea otter livers and kidneys from recovered carcasses have been tested for their cadmium, chromium, copper, lead, and zinc content. All these metals can be toxic to mammals, and three of them, cadmium, lead and chromium—especially chromium with a valence of six—are well known cumulative poisons.

Of the three elements, cadmium is by far the most potentially dangerous, as it is responsible for several known harmful conditions in mammals. These include decalcification of human bones, degeneration of the testes, and hypertension. Hypertension can be induced in rats when renal molar cadmium to zinc ratios exceed 0.35. Two normal otters tested had ratios close to this value, 0.32 and 0.35, which suggests that this condition may be common in the otter herd.[1] These extremely high cadmium concentrations, 4.2 to 16.1 p.p.m. in their livers and 12.0 to 43.3 p.p.m. in their kidneys, have prompted us to begin a search for its source.

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[1] Odell, D. 1970. Premature pupping in the California sea lion, Proc. Seventh Ann. Conf. Biol. Sonar and Div. Mamm., Menlo Park, Calif., Stanford Research Institute, pp. 185–190.

[2] Kenyon, K. W. 1970. Personal communication to James A. Mattison, Jr., M.D., 505 East Romie Lane, Salinas, Calif. 93901.

[3] Heinrich, W. L., et al. 1971. DDT administered to neonatal rats induces persistent estrus syndrom. Science, vol. 173. Aug.

In testing for mercury, six adult or near-adult sea otters were analyzed for comparison with California sea lions.[2] Although brain and kidney levels were similar, sea lion liver values were an order of magnitude higher than those found in the otters (42 versus 4 p.p.m.). The range in sea otters was 0.78 to 7.35 p.p.m. Whether this discrepancy is a reflection of the otters' diet—primarily mollusks,[3] which are not as high in the food chain as the fish diet of sea lions—or a basic physiological difference, remains to be seen.

The accumulation of toxic levels of pesticides and other environmental poisons may eventually cause such a reduction in the number of sea otters as to make the efforts of Alaska's sea otter harvesting program and attempts in California to set limits on their population seem ludicrous.

Testifying in Sacramento against control of the southern sea otter population on April 6, 1970, Dr. Robert T. Orr, associate director of the California Academy of Sciences, and curator of its departments of ornithology and mammalogy, said, in part: "What will (this California bill) do? It proposes to curb sea otters which are barely past the danger point. Why? So that a small group of market hunters who are commercializing on something that belongs to all of us can continue their exploitation to produce a gourmet item."

Attempts of some commercial and sportsmen's groups to encourage legislation that would "manage" the sea otter so as to avoid "resource conflicts" prompted Dr. John H. Phillips, director of Hopkins Marine Station of Stanford University, to testify that this California Senate bill presents a simplistic answer to the abalone decline by using the otter as a scapegoat. He further testified that legislation is needed to increase chances for survival of otters, as well as our declining abalone industry.

Karl Kenyon has reported more than 40 food species from the stomachs of Amchitkan sea otters,[4] and I have observed southern sea otters eat more than 25 different species. The red and black abalone are but two of these. Abalones and spiny lobsters are disappearing in southern California and among the Channel Islands, where no sea otters exist. The excessive human take appears to be causing the decline in these fisheries.

If the sea otter can survive an environment which is becoming increasingly polluted, it may eventually extend its range. Should it reoccupy its former haunts in southern California, it would improve our marine resources by reducing sea urchin populations, thereby enhancing kelp growth, which, in turn, supports rock fish nurseries.

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[1] Martin, J. H. and G. A. Knauer, Cd, Cr, Cu, and Zn concentrations in the southern sea otter. Manuscript in preparation.

[2] Martin, J. H., G. A. Knauer, and B. H. Robison. Mercury in the pelagic food web. Manuscript in preparation.

[3] Vandevere, J. E. Feeding behavior of the southern sea otter, Proc. Sixth Ann. Conf. on Biol. Sonar and Diving Mammals, Menlo Park, Calif., Stanford Research Institute. p. 87–94. 1969.

[4] Kenyon, K. W., 1969. The sea otter in the Eastern Pacific Ocean. North American Fauna, Number 68. Bureau of Sport Fisheries and Wildlife, U.S. Government Printing Office, Washington, D.C. 20402. p. 117.

Because repeated attempts will be made to change State laws to permit reductions in our small precarious marine mammal populations, which are subject to increasing jeopardy from environmental degradation, survival of the southern sea otters would be enhanced by a strong bill to protect marine mammals.

H.R. 10420 and H.R. 6558 are worthy attempts to preserve the marine mammals associated with the shores of the United States. These animals, as I have indicated, are in jeopardy not only due to their exploitation but due to pollutants that are causing a general deterioration of our marine environment. Strong legislation is essential to the survival of these animals.

Mr. Vandevere. I would like to show a 2-minute film to introduce you to the southern sea otter of California.

Mr. Dingell. Very good.

(Showing of film.)

Mr. Vandevere. The only place where sea otters occur naturally in the continental United States is a 160-mile stretch of California's coast. They were thought to be extinct like many marine mammal species.

Mature females give birth to a single pup no more often than once every 2 years.

Marine mammals do not bear more than one young at a time. Life is just too harsh.

My observations have shown the southern sea otters to feed primarily on molluscs, arthropods, and echinoderms.

Mothers take care of their pups for almost a year. They show great concern and interest for each other when faced with danger—the danger of man—and will alert each other and dive to get out of man's way.

On the 26th of this month, Jacques-Yves Consteau will begin his new television series with an hour-long documentary on the sea otter, the first quarter will be on the Alaskan sea otter.

He is using some of my footage and I appear in the film as well. I was his scientific adviser for this documentary.

In 1959, acting Governor Glenn Anderson, who is a member of this subcommittee and the author of bill H.R. 10420, signed into law a bill which extended the reserve of the sea otter from the Carmel River to the city of Cambria.

Now, the California Department of Fish and Game and some sport and commercial abalone interests are wrongly contending that the reserve created by his signature was intended to confine the sea otters to the area between the Carmel River and the town of Cambria.

They charge that the sea otters have ecsaped from this zone of protection and are occupying areas north and south of their 1959 expanded refuge.

It is my understanding that something has happened to the Pribilof fur seal population this season which the wildlife managers are unable to account for; there has been a great drop in the Pribilof fur seal population.

I am also concerned as to the fate of the porpoises which fall victim off Chile to the tuna fishermen. They use these porpoises to discover the schools of tuna. The fisherman accidentally kill the porpoises along with the tuna, especially the female and baby porpoises, the babies cannot make it over the net to escape and their mothers will not leave their babies. With a high rate of porpoise deaths, we are in danger of losing this resource and our fishermen are in danger of losing their one good method of finding the tuna.

Wildlife managers are employed by our Fish and Wildlife Service and by State departments of game and fish. These men are influenced or their superiors are influenced by the commercial and sports interests and often their research is skewed. Our California Department of Fish and Game is supported entirely by sport and commercial license revenues.

No conservation money, no general funds are given to them at all, so the wildlife managers are unfortunately politically motivated or influenced because of the nature of their support.

Thank you, Mr. Chairman.

Mr. DINGELL. Mr. Vandevere, the committee is very grateful to you for your very helpful statement.

The gentleman from California, Mr. Anderson.

Mr. ANDERSON. Mr. Chairman, I would like to commend Mr. Vandevere for his remarks and particularly in reminding me that I did sign the sea otter bill into law. Thanks again for reminding me.

Although it is now ancient history, it was a needed law.

(A letter was received by the committee from Mr. Vandevere, following his appearance. The text of his letter follows:)

HOPKINS MARINE STATION,
Pacific Grove, Calif., September 24, 1971.

HON. JOHN D. DINGELL,
House Office Building,
Washington, D.C.

MY DEAR MR. DINGELL: Chief Clerk, Robert J. McElroy has been sent the corrected copy of my testimony before your Subcommittee on Fisheries and Wildlife Conservation on September 9, 1971. To prevent repetition, I have recommended that he delete more than 130 lines of my additional comments for this information appears in my prepared testimony.

I would like to apply for insertion of the following approximately 14 supplemental lines, on page 122, after line 18:

"H.R. 10420 which provides that the fate of all marine mammals shall be decided by three commissioners 'Knowledgeable in . . . resource management' is therefore disturbing as is the fact that they are charged with managing all marine mammals. '. . . on an optimum sustained yield basis.' The commissioners should be knowledgeable in marine ecology and marine mammalogy, not resource exploitation.

"Also, the provision in H.R. 10420 which permits '. . . any marine mammal (to be captured) for public display or educational purposes . . .' should be qualified to prohibit their display in all zoos and shows other than the major facilities of the world which employ marine mammal veterinarians and have proper accommodations for these unfortunate marine mammals."

I was impressed by your opening statement and by your interest in the testimony of the scientists whom you had the wisdom to invite before your subcommittee. I understand that you have requested information on the status of the sea otter. I have forwarded such data to you through the Humane Society.

I enclose a copy of a letter I have addressed to the Hon. Glenn Anderson in which I recommend complete protection for all marine mammals until the biological effects of increasing levels of cumulative poisons can be determined.

Yours very truly,

JUDSON E. VANDEVERE.

Enclosure.

HOPKINS MARINE STATION,
Pacific Grove, Calif., September 24, 1971.

Hon. GLENN M. ANDERSON,
House Office Building,
Washington, D.C.

DEAR MR. ANDERSON: Many thanks for your letter of 16 September. As you remarked, I commended acting Governor Glenn Anderson for signing into law in 1959 a bill which quadrupled in size, the reserve of the southern sea otter. Mention of this expansion appears on page 526 of the October 1971 issue of National Geographic.

It is my understanding that something has happened to the Pribilof fur seal population this season which the wildlife managers are unable to account for, and there has been a great drop in the Pribilof fur seal population.

Wildlife managers are employed by our Fish and Wildlife Service and by State departments of game and fish. These men are influenced or their superiors are influenced by the commercial and sports interests and often their research is skewed. Our California department of fish and game is supported entirely by sport and commercial license revenues. No conservation money, no general funds are given to them at all, so the wildlife managers are unfortunately politically motivated or influenced because of the nature of their support.

H.R. 10420 which provides that the fate of all marine mammals shall be decided by three commissioners "Knowledgeable in . . . resource management" is therefore disturbing as is the fact that they are charged with managing all marine mammals ". . . on an optimum sustained yield basis." The commissioners should be knowledgeable in marine ecology and marine mammalogy, not resource exploitation.

Also, the provision in H.R. 10420 which permits ". . . any marine mammal (to be captured) for public display or educational purposes . . ." should be qualified to prohibit their display in all zoos and shows other than the major facilities of the world which employ marine mammal veterinarians and have proper accommodations for these unfortunate marine mammals.

The world's populations of marine mammals are in jeopardy from: over exploitation; accidental man-caused traumatic death; legal and illegal cropping to prevent resource conflicts; larger and more numerous oil spills; the Cannikin blast on Amchitka; and the increasing levels of cumulative polychlorinated biphenyls, heavy metals, and chlorinated hydrocarbons in their tissues.

Because of these problems and our fear that devastating reproductive failure, such as some bird species are experiencing, may next be recognized in marine mammal populations, legislation to promote the management of marine mammals ". . . on an optimum sustained yield basis . . ." is in error.

Today's hard pressed remnants of our once healthy marine mammal populations should be given complete protection until the biological effects of increasing levels of cumulative poisons can be determined.

Yours very truly,

JUDSON E. VANDEVERE.

(The following column on the matters raised by Mr. Vandevere was received after the close of those hearings. For the information of those concerned, the material follows:)

OUR ENVIRONMENT—THE SEA LIONS' WARNING

(By Stewart Udall and Jeff Stansbury)

On California's rugged channel islands, we Americans may be entering the saddest phase of our long love-hate affair with pesticides. Scientists have discovered a stunningly high correlation between levels of DDT in the female sea lions that inhabit the islands and the alarming rate at which they are now aborting their pups.

This discovery is so recent that the backup studies will not be published for several weeks. But if the link between DDT and abortions is sustained, it will be the first time it has ever been documented in a wild population of mammals—the biological order to which man himself belongs.

Here's how the latest pesticide disclosures came to light.

In 1968, a young zoology student, Daniel Odell, observed a large number of aborted sea lion pups strewn across the beaches of San Miguel and Santa Barbara islands. Odell, now 25, is a UCLA ecologist investigating the population dynamics of California sea lions and elephant seals. He learned that abortions among the channel island herds had been reported as early as 1949—but never in their present high numbers.

Two years ago, Odell began making monthly surveys of the 10,000 to 12,000 sea lions on San Nicolas Island southwest of Los Angeles. Breeding begins there each June, and the pups are born during the spring. "Aborted" young actually emerge alive, but they are premature and quickly die.

In 1969, Odell counted 135 aborted pups from January to mid-May. The following year the number rose to at least 550, then fell off to 389 this spring.

What about the young who survived? There were only 2,300 in 1970 and substantially more—3,500—this year. From a population of at least 7,500 adult females, however, neither baby crop was impressive. Odell thinks many more pups were aborted at sea.

Evidence strongly implicating DDT in this drama has now been brought forward by three West Coast researchers, William Gilmartin, John Simpson and Robert De Long. Last spring, they examined six female sea lions who had just aborted their young and four who had borne healthy pups. They found no significant age differences between the two groups. They found no differences in viral, bacterial or stress diseases. What they did find was a striking disparity in the levels of DDE—the main breakdown product of DDT.

The aborting females had 8½ times as much toxic DDT in their blubber as did the nonaborting females.

"We could hardly believe it," says Gilmartin, a microbiologist with the Naval Undersea Research and Development Center in San Diego. "There was this dramatic gap in pesticide levels between the two groups—no overlap at all. The relationship between DDE and the abortions is so strong that it is probably *causal*, though we won't really know without more research."

De Long, a biologist with the Commerce Department's National Marine Fisheries Service in Seattle, points out that the aborting sea lions also had high levels of mercury and very high levels of PCBs—toxic chemicals that are increasingly being used in paints, insulation and plastics. "In combination with DDT," he says, "the PCBs may have had a doubly grave impact on sea lion reproductivity. Those animals were really hot."

The work of Odell, Gilmartin, Simpson and De Long raises some tantalizing questions. Why, for instance, do female sea lions from the same island show such striking differences in DDT and PCB concentrations?

"The answer may lie in the migratory and feeding habits of the herd," says Odell. "Many of the San Nicolas females seem to winter off the coast of Mexico, but some hang around the islands. Very possibly *they're* the ones picking up most of the pesticides in the squid and fish they eat. Around Ventura, there's lots of agricultural runoff into the sea, and in Santa Monica bay the Montrose Chemical Corp. is known to have dumped DDT."

The crisis of the sea lions comes amid growing evidence that pesticides and PCBs are threatening entire bird species—especially the pelicans, peregrine falcons, bald eagles and Massachusetts sparrow hawks. In 1969, for instance, a breeding population of over 600 brown pelicans on California's Anacapa Island produced only five fledglings. A related brown pelican population in South Carolina withered away from over 5,000 breeding pairs in 1960 to only 1,250 in 1969.

In all these cases, DDT or PCBs severely deranged the birds' calcium processes. Females lay eggs so thin-shelled they are crushed in the nests. The few pelican eggs that survived contained over 15 times as much DDT as eggs found in one successfully breeding population.

But of all the recent developments, the threat to the sea lions is most ominous. Ocean mammals are everywhere threatened, and legislation to save them (the Harris-Pryor bill) has been attacked by the Nixon Administration. Considering the likely new menace of toxic chemicals, isn't it time we halted the commercial killing of sea mammals?

Finally, the ultimate question: Sea lions are mammals. So are we. If DDT and the PCBs are inhibiting the reproduction of sea lions, what are they doing to us?

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Mr. Dingell. Our next witness is Dr. Daniel Hartman, Paradise Point Nature Center, N.H.

Will you identify yourself for the record and then we will be pleased to hear from you.

STATEMENT OF DANIEL HARTMAN, PH. D., PARADISE POINT NATURE CENTER, N.H.

Dr. Hartman. My name is Daniel Hartman. I am here to testify on behalf of a rare and little known group of mammals called sirenians. The group is represented in the United States by a single species, the Florida manatee or sea cow.

Recently, I had the pleasure of studying the natural history of this animal for a year and a half. My research was sponsored by the National Geographic Society and presented as a doctoral dissertation to Cornell University.

There are but four species of sirenians. All are immediately threatened with extinction, a fate which has already befallen their cousin, Steller's sea cow. Discovered in 1741 off two islands in the Bering Sea, this toothless 25-foot leviathan was ruthlessly killed for meat by fur sealers. The last one was harpooned and clubbed to death a mere 27 years after their discovery.

At the turn of the century, the Florida manatee was on the threshold of extermination. Formerly ranging along the coast from the Carolinas to Mexico, the animal was slaughtered in all but the most sequestered backwaters. Manatee steaks were, and still are, considered a delicacy. The manatees were soon reduced to a few relict populations scattered along the Florida peninsula. Since then, their status and distribution has changed imperceptibly, if at all.

The Florida manatee is protected by State law. There is a $500 fine for killing or molesting a sea cow. This penalty is rarely enforced. The law, furthermore, has little relevance today. It was originally designed to protect manatees from poachers, but poaching is no longer a serious threat.

Instead, manatees face new dangers. In several areas, notably around Tampa and in the St. Johns River, water contaminated by herbicide spraying, dredging, and/or industrial effluents has destroyed the vegetation on which the animals feed.

Still more hazardous to their survival, indeed the chief source of manatee mortality, are the whirling propellers of speeding power craft which overtake the animals unaware at the surface.

To adequately protect the manatee, therefore, new legislation must be enacted, legislation that is directed toward pollution abatement and reducation of boat speeds in manatee habitat.

In every nation where sirenians occur—other than the United States—their numbers are dwindling fast. In this country, the manatee is apparently holding its own, for the moment anyway, but its status is tenuous. We do, however, have an opportunity to bring them back, perhaps to set an international precedent.

I suggest this because it appears that manatees are on the increase, at least on the central west coast of Florida where I conducted my study. Their recovery in the area parallels a recent eruption of introduced aquatic "weeds."

The actual focus of my research was the source of the Crystal River where limpid spring-fed waters provide a natural laboratory for underwater observations. Manatees congregate here each winter, seeking shelter in the warm waters during cold spells. It is an ideal location for a national manatee refuge. With appropriate safeguards and under the constant surveillance of refuge personnel, manatees could be assured permanent protection here and perhaps even become a reservoir from which surplus animals could be drawn to colonize erstwhile haunts.

The sirenians are docile, harmless, unobtrusive creatures with no defense but flight, no enemies but man. In today's mercenary world, they are an anachronism; they have no real commercial value. Attempts to use them as agents of aquatic weed control in Florida's waterways are, to date, inconclusive.

About all the sirenians ever did was to give rise to the mermaid legend. We should preserve them for that. We should preserve them because they are there, because they are part of nature's balance and mystery.

The manatees' future is in jeopardy, but it is within our power, at least in Florida, to reduce their vulnerability and to reverse their decline.

I will be happy to field any questions you may have.

Mr. Dingell. Doctor, we are going to have the lights turned out and I would like to ask you, you have made some suggestions and I think it would be appreciated if you would see to it that you sent the staff such suggestions for legislative action that you might deem appropriate or some amendatory language for the matters now pending before us.

Dr. Hartman. Fine, thank you.

(Showing of slides.)

Mr. Dingell. Mr. McCloskey had a question he wanted to direct to you or one of your other witnesses and we will recognize him at this time.

Mr. McCloskey. Doctor, we have some antiocean dumping legislation on the floor this afternoon and that is a very controversial issue involving the marine sanctuaries.

In your comment about the deaths of the manatees, can you document for us any deaths that you have traced directly to agricultural pesticides?

Dr. Hartman. Not so much to agricultural pesticides as to effluents from the phosphate industry and to herbicides used in the control of aquatic plants.

During my research I conducted an extensive survey on the west coast of Florida, questioning commercial fishermen, guides, baithouse operators, and so forth. I discovered that where animals had once been present, as recently as 10 years ago, they are now absent.

Mr. McCloskey. What were your conclusions as a result of this study?

Dr. Hartman. That manatees are threatened by a combination of factors. The dredging of canals silts the waters depriving submerged vegetation of sunlight. Eventually it dies and the manatee's staple is gone.

In the St. Johns River, the herbicide 2,4-D has been sprayed extensively to eradicate water hyacinth. It is impossible for us to calculate the long-range effects of this herbicide on the animal's reproductive capacity.

Mr. McCloskey. Can you break that down? Can you show any differentiation between the vegetation killed by silt and that killed by the phosphates and industrial wastes?

Dr. Hartman. Where aquatic vegetation once existed there is none now. Manatees cannot survive without this food source.

(Showing of slides.)

If there are any questions during the slide show, feel free to interrupt me.

This is what one would normally see from a boat while in the Crystal River area, one of only two areas in the world where manatees can be observed in limpid water. Their normal habitat is in murky or turbid rivers and estuaries.

My study was focused on the headwaters of the Crystal River. During the winter snorkeled daily with the animals in the main spring where they would congregate for warmth.

I kept a record of their activities on an underwater clip board.

The next slide shows an approaching animal. This is the mermaid of legend. Presumably, the Portuguese and Spanish navigators were responsible for the idea that manatees were mermaids. These sailors, at sea for months at a time, were probably hallucinating from disease and saw mermaids where there were sea cows.

Manatees are ungainly, grotesque creatures. I have always felt that they are so ugly as to be beautiful.

You can see in this picture the remarkable lip lobes that they use to crop vegetation.

The next series of slides illustrates one of the major threats to their survival.

Here is a little bull lying at the bottom. You can see where a propeller has run down the center of his back.

Again, an adult bull. Once more the pattern of wounds inflicted by a propeller. Almost all of the 70 or so animals I saw at Crystal River, had at least one set of propeller scars on them. I would suspect that wounds sustained on the back or tail are not fatal but those sustained in the head region may well be.

Here is a cow with a calf to her left. Note how a propeller has cut off half her tail.

Two manatees "kissing" at the surface. This is part of their behavioral repertorie.

Finally, a short sequence of slides illustrating my relationship with a young cow.

I had a particularly close attachment to this female. She once tried to drag me underwater, all the time making strange noises.

I was sure she was trying to tell me some secret of the universe. The last slide shows her kissing my mask as she would another manatee.

Mr. Dingell. Remarkable set of photographs.

Dr. Hartman. Any further questions?

Mr. Dingell. Just one. We would appreciate it if you would take a look at the marine sanctuaries legislation and let us know if this would be a useful tool of preserving the type of species you are talking about and the sea otter.

The committee would like to have your comments on that particular point.

Doctor, we thank you.

Mr. Dingell. Our last witness this morning is Dr. Theodore Walker, research biologist for the Scripps Institution of Oceanography, La Jolla, Calif.

Will you please identify yourself fully for the purposes of the record?

STATEMENT OF THEODORE J. WALKER, PH. D., RESEARCH BIOLOGIST (RETIRED), SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CALIF.

Dr. Walker. My name is Theodore J. Walker. From 1948–69, I served as Research Oceanographer, Scripps Institution of Oceanography, La Jolle, Calif. Since that time, I have produced a film for the National Parks Service documenting gray whale behavior; written the article on the gray whale for the National Geographic, March 1971; participated in two Jacques Cousteau specials, "The Desert Whale" and "The Elephant Seal," and have just completed "Alaska-Wilderness Lake" which will be shown on national television this fall.

The scientific and popular writing on whales has created such an abundance of fact and folklore that it becomes very difficult to justify any point of view with finality. However, I would like to go on record that we stop killing all whales and, in fact, virtually all marine mammals.

My reasons follows: It is my feeling that we should leave the natural world in as good condition as we found it.

It is evident that in the 20th century, whaling has become so efficient that all whales will reach near extinction in a few more years. Population experts will quibble over when this will happen. It is more important to stop short of catastrophe.

The yields which a marine mammal can provide and still meet the vicissitudes of its environment are not known. It is evident that man's exploitation of the renewable marine resources of the sea has proceeded by trial and error. The whaling companies have invested a small percentage of their profits and made available their facilities to whaling scientists who were and are charged with judging what the catch should be.

These scientists owe their livelihood to the whaling companies, and it should not be embarrassing to them to acknowledge their bias toward whaling. They have achieved a tremendous body of whaling statistics which is derived primarily from measurements and observations of whale carcasses.

Virtually all of our knowledge of the biology of whales has been derived by these scientists; however, these studies do not encompass the living whale. Such studies would provide much greater appreciation of the animal and its problems engendered in its daily living.

I have, myself, pioneered in such studies on the California gray whale and, although my findings are far from completely elucidating the full reality of the gray whale, I find much contradiction with the findings of the whaling scientists who work in whaling stations.

In the evolution of marine mammals into the sea, species have evolved which stand at the peak of the food chains.

Various specializations have been evolved, which parallel the operational needs of the navies; for example, underwater communications and underwater location. It is safe to say that man has much to learn about these remarkable specializations.

I would argue the preservation of the whale on an esthetic basis. Whales have figured largely in the romance of the sea; that is, Melville's "Moby Dick," Victor Sheffer's "Year of the Whale," et cetera.

In the 20th century, man has taken much joy from seeing whales lolling and blowing along the California, Oregon, Washington coast, and whale watching is very much in vogue.

Second, whales need to be preserved to maintain the normal ecological relationships in which they figure prominently.

Third, whales should be preserved for the mysteries which they will afford new generations of scientists to unravel.

Finally, when the whale populations have recovered to their original levels, it would be possible to probe normal population fluctuations which the environment places on them. Coupling this information with the full knowledge of the daily and season stresses experienced by whales, one should be able to establish a reasonable estimate of the catch which the whale species could afford from year to year instead of making a wild guess and having to wait for the population to climb back to its optimum productive level.

Turning now to an example, the California gray whale population is presently restricted to a Californian herd which calves primarily in California. In the 1920's and before, the California gray whale also calved off Korea. This population is now extinct. Examination of whaling logs of the New England dealers, who first whaled the California gray whale in 1846, finds a rather abrupt decline in the overall population in a period of not more than 10 years, and by 1870, the species was virtually extinct.

Further studies of the efficacy of whaling in those days reveals the intensity of whaling to be extremely low, probably not more than one whale per day per boat and, in spite of this inefficient limited catch, the whales became so reduced as to be unprofitable to whaling.

Attempts by man in the 1920–34 period, employing the predecessors of modern whaling fleets, brought whaling stocks into near extinction by 1934.

It is curious that the Bureau of Commercial Fisheries employs a whaling scientist whose responsibility is to probe population levels of whales exploited off central California by two whaling companies whose products enter into pet food and fur-farm animals. It should be stressed that the population sampling techniques are those standard for the industry and are dependent on the operation of those whaling companies.

Ostensibly, the international whaling industry awaits the results of their population analysis of the California gray whale which is presently being harvested solely for this study. This brings me around to my main complaint with the International Whaling Commission and the population studies which they finance.

I think the rapid decline and the bankruptcy of whaling companies speaks for the inability of these people to harvest whales with a continued sustained yield. In fact, unless international pressure can be brought to bear on the culprits, all major whales will vanish from this globe.

The possibility of this happening is real enough, as evidenced by the loss of the Korean herd of California gray whales and the extremely limited stocks of bowhead whales and their near relatives, the right whales. These species, which figured so prominently in 17th and 18th century whaling, have failed even today to come back, notwithstanding the fact that they are presently banned from whaling (1937).

I would like to go on record as pointing out that the population scientist, the International Whaling Commission, and those employed in various governmental agencies throughout the world, have beautifully mirrored the decline of whaling stocks and have hastened the eventual ill health of the whaling industry by rapid finding, killing, and butchering of whales. They have, also, pursued these limited researches to the point of absurdity. Such studies would not gain or warrant publication in truly competitive scientific journals.

I introduce this evidence, not to censure their basic findings, but to establish their repetition and wastefulness and failure to develop meaningful studies based on the living whale.

Insofar as other marine mammals, exploitation principles should depend on, first, having adequate study of the living animal and its ecological relationships, so that sound management practices could ensue.

I cannot, in my own conscience, see the need to adorn the human body with wild pelts when we can do better with synthetics.

In this connection, there is new information developing in California on the interconnection of the sea otter in its role in maintaining the natural beds of kelp which fringe the rocky shores from Alaska to Baja California. The kelp has undergone considerable decline in areas of abundance, and this is believed to be due to the overpopulation of sea urchins which destroy the new kelp plants.

Extensive manipulation of the ecological system involving pesticides for sea urchins has proved to have many deleterious effects of other inhabitants of the kelp, and it now appears that the sea otter provided nature's method of control.

I believe that I would like to also go on record as pointing out that a moratorium on the slaughter of animals should not be construed as the final solution to these problems.

It is most important that the United States, through enactment of this legislation, set an example throughout the world.

It has been my philosophy that we cannot save anything that we do not experience.

My testimony today has been directed in a slightly different way than I think you would expect a scientist to react.

I have become increasingly disenchanted with the fact that we scientists become so specialized that we bury ourselves in a hole and never look out and essentially communicate only with each other in a very technical way.

I have spent approximately 6¾ months living alone developing a documentary on the ecology of streams and lakes in southeast Alaska.

In the process of doing this, I began for the first time to look out and see some of the shortcoming of science, and I feel that the case of the whale is a particularly good one.

The reason I am going to be here testifying is that I have always felt the scientists who are involved in what we might call management of the whale resources are essentially well-meaning scientists, and they have done a tremendous job.

There is a tremendous literature they have accumulated, but it is to no avail because the people for whom they work are the whaling interests and they have continued to whale above and beyond the amount they should.

The result is that gradually the whaling interests are dropping out one by one and at the present time we are down to three nations that are whaling, four if you want to consider our whaling station at Richmond, Calif.

Mr. DINGELL. Do we not also have some outlaw whalers?

Dr. WALKER. Yes. I feel very strongly that this legislation is a must.

We must endeavor to go on record as being opposed to whaling at the present time and we owe it to future generations to preserve whales.

Whales have figured tremendously in the mystique of the sea, the literature of the sea. Everyone identifies strongly with whales.

Whales are animals of mystery and animals whose ability and agility to keep out of our way leaves us, as researchers, in an embarrassing position.

We cannot do the research on them that we want. If we are intent on maintaining a population level of human beings at the present level or at some larger level, it is obvious that we are going to have to turn to the sea for food.

I feel a little unhappy about this thought and we have already been living out of the sea, but if we are going to do it we are going to have to somehow give the species a chance to come back.

At the present time we have seven whale species that are available for commercial whaling and of these seven, three are in rare condition. We have the gray, the bowhead, the rake and now the humpback whale and, of course, the blue and if we are going to give these creatures a chance to come back, the 10-year moratorium is not enough.

We are talking about populating tremendous volume of a vast surface of the globe, approximately 70 percent of the ocean which is available to the whales and I just somehow feel that the committee should consider this an overpowering necessity to somehow see the right moral and the right conservation practice so that the whales do have a chance to come back.

The bowhead whale and the right whale have not been whaled properly for over a hundred years and in spite of the fact that they are not being whaled, they have not come back.

There is a strong feeling that maybe when an animal gets down to a certain level with the volume of the ocean and the problem of whales getting together to mate, that they just cannot do it.

There is also some impression that gregarious animals, social animals, when they are put into population situations which are too few, are under stress and because they are under stress, they do not perform properly.

I think I have stressed the idea that there is the essential possibility of using these animals again at some future date.

I do not think it would be 10 years. I think it is much closer to 100 years.

Mr. DINGELL. As a matter of fact, the lifespan being what it is, it might be less than that.

Dr. WALKER. Yes. I think we have to do additional research on the whales.

I get a little embarrassed here because I feel the areas in which we should be putting our research money are in areas where we are building things that are more immediate to man.

I think that the whales are in an environment which will be the last to go.

I do not subscribe to the idea that the oceans are going to be immediately converted into cesspools, but there are obvious close connections between whales and all the other members of the food chain.

I do not think we can willy-nilly go along and assume if we tamper here with the ecological system that there will be no repercussions elsewhere.

I know time is short, but I just feel so desperately about this, that scientists should not be fighting among themselves about what level we should allow to be taken.

I think we should arbitrarily say at the moment it would be to our real advantage to stop, and with that I will stop.

Thank you very much.

Mr. DINGELL. Doctor, you have been very gracious and informative to the committee to come such a great distance and we want to tell you to feel comfortable. I am sure you have other things you would like to say and for that reason, the Chair will hold the record open for such additional inserts as you may wish to make.

The Chair is advised that you did have a brief film that you would like to show us.

Dr. WALKER. This is on one of my favorites, the gray whale.

I would like to identify the problem of the gray whale. The gray whale has not been taken commercially since 1934.

The gray whale has been protected during this period of time and has gradually recovered to some degree, the degree it has recovered is open to argument.

The whaling station in Richmond, Calif. is viewing this resource very eagerly.

They would like to augment their brief whaling season by taking the gray whale as it migrates along the California coast, both down and up migration.

In addition, the Russian and Japanese fleets of the North Pacific are operating during the summer months when the California whale is in the Bering Sea and Arctic Ocean.

Mr. DINGELL. Are they taking the gray whale?

Dr. WALKER. We do not know. There is every reason to suspect they are because there are no observers aboard those vessels. It is strictly a gentleman's agreement among themselves.

Once a whale goes aboard a whaling ship and goes through the grinding wheels and the butchering, it is finished and there is no way to tell a gray whale from any other whale.

My feeling is that the gray whale population has leveled off and it may very well be that there is some sort of, what I guess you would call, piracy of these species.

Mr. DINGELL. Can you give us an idea of the population level of these different species?

Dr. WALKER. I have some notes here. Again these vary.

The estimate for the blue whale is somewhere between 600 and 3,000.

The estimate for the finback supposedly is around 100,000.

The sei whale which another is closely related to these two I suspect may be 75,000.

The sperm whale is the only whale species that has any real hope of continuing to the 21st century because essentially whaling can be confined to the male population which is supernumary.

The humpback whale is around 2,000.

The gray whale is between 6,000 and 10,000.

The bowhead whale, as I reported, in the 17th century fisheries of Holland and England was very abundant but now it is estimated between 20 and 200.

The right whale is 20 to 250.

The small estimates are completely out of order. They may be quite a bit more.

A whale comes to the surface to breathe every so many minutes.

Statistically, it is very difficult to census them in this way.

The best census is really based on catch statistics.

Well, this film is a film showing how the whalers operate.

I would like to point out that whaling is a nasty business. There is no easy way to kill a whale. I cannot argue the point.

There have been a number of experiments attempting to figure out the way of killing whales and the way now is to shoot them and explode a bomb in their body. This film deals with the killing of blue whales.

Let's stop it there. I am very much against seeing anything slaughtered if it is alright with you.

I have at least made my point. I do feel the whale is a heritage we must pass on to future generations and there is only one way to do it and that is to get with it.

Mr. DINGELL. Doctor, the committee is grateful to you for your presence and your very helpful statement.

The Chair observes one more witness was scheduled, Mr. Tom Garrett, of Friends of the Earth.

The Chair announces at this time that further hearings will be held at which time Government witnesses will be called in. Witnesses from Alaska, California, and also from other conservation organizations and private citizens will be heard at a time later.

The Chair does advise it is the intention of the subcommittee to move forward as rapidly as possible toward a good, solid bill to protect marine mammals.

The Chair does announce that the next set of hearings will take place September 13, at which time the Department of State, the Department of Commerce, and the Department of Interior will be heard.

The Chair does also announce that at that time we will be hearing from Assistant Secretaries or Under Secretaries, persons who are able to address themselves to the policy questions involved here.

There is the probability that Friday of next week will also be a day for hearings and possibly sometime around the 23rd there will be further hearings, which will be announced as soon as the subcommittee has been informed that those dates are satisfactory.

If there is no further business to come before the subcommittee, the subcommittee will stand adjourned pending the call of the Chair.

The Chair does thank all witnesses who have made their time and efforts available for a successful and informative hearing.

With that, the subcommittee stands adjourned.

(Whereupon, at 12:20 p.m. the subcommitee adjourned subject to the call of the Chair.)

MARINE MAMMALS

MONDAY, SEPTEMBER 13, 1971

House of Representatives,
Committee on Merchant Marine and Fisheries,
Subcommittee on Fisheries and Wildlife Conservation,
Washington, D.C.

The subcommittee convened at 10:10 a.m., in room 1334, Longworth Office Building, Hon. John D. Dingell, chairman of the subcommittee, presiding.

Mr. Dingell. The subcommittee will come to order.

This is a continuation of the hearings by the Subcommittee on Fisheries and Wildlife Conservation on H.R. 6558 and related bills to provide for the protection of marine mammals.

The witnesses this morning are Dr. Lee Talbot, Senior Scientist, Council on Environmental Quality; Dr. Joseph Linduska, Acting Director, Bureau of Sport Fisheries and Wildlife, Department of the Interior; Dr. Donald McKernan, Special Assistant to the Secretary, Department of State; and Mr. Howard Pollock, Deputy Administrator, National Oceanic and Atmospheric Administration, Department of Commerce.

Dr. Talbot, it is a pleasure to see you. The Chair would request that you identify yourself fully for the purposes of the record and if you choose to have any of your associates with you for purposes of counsel or to testify, please feel free to call on them.

STATEMENT OF DR. LEE TALBOT, SENIOR SCIENTIST, COUNCIL ON ENVIRONMENTAL QUALITY

Dr. Talbot. Thank you, Mr. Chairman. I am Lee Talbot, Senior Scientist of the President's Council on Environmental Quality.

Chairman Train regrets that he is unable to be here this morning. He has a longstanding commitment to present testimony elsewhere this morning and consequently, he requested that I represent him by presenting his prepared statement and that I be prepared to respond to any questions that you may have, sir.

I do not have anyone appearing with me.

Chairman Train's statement reads as follows:

STATEMENT OF RUSSELL E. TRAIN, CHAIRMAN, COUNCIL ON ENVIRONMENTAL QUALITY—AS READ BY DR. LEE TALBOT

Dr. Talbot (reading). Mr. Chairman and members of the committee, I appreciate the opportunity to present to you our comments on H.R. 10420, the Marine Mammal Protection Act of 1971 and other bills before the committee.

You have also invited comments from the several Federal departments that would be involved in the execution of a marine mammals act. In their statements to you, the representatives of these departments will address specific provisions of H.R. 10420 and suggest amendments from the standpoint of their individual responsibilities. I shall not cover the same ground, but rather, shall address myself more generally to some of what we consider to be the most important aspects of the act.

America has led the world in the development of the principles and practice of scientific wildlife management. Depending on the status of the wild species involved, the condition of its habitat, and the objectives of management, a variety of management techniques or methodologies may be used. In addition to habitat protection and manipulation, management techniques required to assure the survival of a species may range from provision of total protection through culling or harvest, and these requirements may change from time to time.

It is basic to scientific wildlife management that while total protection may be neecssary to have a species at one time, it may prove detrimental to the species at a subsequent time. The rigid policy of total protection, as is called for by H.R. 6558, the Ocean Mammal Protection Act of 1971, represents a reversion away from scientific conservation and management which is basic to our national and international endeavors in wildlife conservation. Consequently, we are not in favor of H.R. 6558. However, H.R. 10420 appears to be based on the principles of scientific management. The objective of H.R. 10420 is to achieve more effective management of marine mammals, in order to assure that they are not threatened with depletion or extinction, and that their esthetic, recreational, and economic values to human welfare be realized. The provisions of the act recognize the need to base effective management on adequate scientific information, which in some cases does not now exist; the need, in some cases, to extend our regulatory authority beyond the present limit of the territorial seas; and the need to seek more effective international agreements for management of some of the marine mammals in international waters. We strongly support this objective and endorse these principles.

Mr. Chairman, you and your committee have a long and distinguished history of effective environmental concern. It is only relatively recently that this concern has spread to the American public, in general, and indeed, to the peoples of the world. The past several years have witnessed an extraordinary growth of national and international environmental awareness. With this has come a recognition of the finite—and even fragile—nature of many of our living resources, and of the urgent need to manage them in a responsible manner on the basis of scientific knowledge and scientific management principles.

There is also a growing recognition that many of our past approaches to management of these living resources were based upon a relatively narrow concern with their immediate value to man as products. We are now coming to recognize that they play a much broader and more vital role in human welfare. These living resources are integral parts of the ecosystems in which they are found. As such, they contribute to the stability and health of our environment—the life support system on which our survival and welfare depend. In the case of wildlife, we are also coming to recognize that in addition to the ecological considerations, recreational and esthetic values must be given weight along with the traditional direct economic values.

Therefore, we have come to a much broader concept of the objectives for management of our living resources. As a result, in some cases, revision in our approach to this management is required. This principle is particularly evident in the case of some marine mammals, such as whales.

When the International Convention for the Regulation of Whaling was developed following World War II, a paramount consideration was the health and welfare of the whaling industry which had been seriously affected by the war. Associated with this was the concern that maximum economic yields of the products of whales be obtained. The net result of whale management under this convention has been the drastic reduction of whale populations to the point where this Government has placed all commercial species on the endangered species list. This action will have the effect of withdrawing the United States from all whaling activities or commerce in whale products at the end of this year. Although the situation may have bettered somewhat in recent years, it is clear that effective management of the whales has not been obtained under the convention. A significant revision in the convention may be required to provide the base for effective management of whales as a continuing and productive part of the marine environment. Section 202(a)(1) of H.R. 10420 addresses this need for review of the whaling convention.

While we recognize an urgent need to improve some of our management of marine mammals, and to increase the knowledge base upon which some management depends, we also recognize that some effective research and management has been accomplished at both a State and Federal level. For example, from the information available to us, it appears that the operation of the fur seal convention has been one of the few successful examples of international management of a living marine resource, which has resulted in an increase of a formerly depleted population and in continued economic and biological productivity.

Some marine mammals are truly international, spending much of their lives outside of the territorial waters of the United States. Effective management of these species requires that the Government have adequate authority to regulate the taking of these animals on the high seas beyond the waters under American jurisdiction. Such authority at present exists for the management of fur seals and sea otters under the Fur Seal Act of 1966 (80 Stat. 1096; 16 U.S.C. 1171). However, it does not extend to some of the other marine mammals such as polar bears and walrus. Although section 101(1) of H.R. 10420 refers to taking marine mammals on the high seas, section 102 (a) limits the authority granted under the act to protection of marine mammals within the waters under the jurisdiction of the United States. We would recommend that the act be amended to extend authority, as appropriate, to the taking of marine mammals by persons under U.S. jurisdiction on the seas beyond the territorial waters of the United States.

Reorganization Plan No. 4 of 1970 (84 Stat. 2090) transferred to the Department of Commerce those authorities formerly exercised by the Department of the Interior through the Bureau of Commercial

Fisheries. In the case of marine mammals, this included management activities and research related to fur seals, whales, and sea lions. In section 3(3) of H.R. 10420, responsibility for all marine mammals is placed in the Department of the Interior. The need for such a coordinated approach for the protection, conservation, and management of marine mammals was recognized in the proposal of this administration for the creation of a Department of Natural Resources. Since such consolidation is anticipated in that proposal, we would urge speedy action on the Department of Natural Resources proposal, and in the interim, would not favor such consolidation by other means, as proposed in H.R. 10420.

H.R. 10420 would establish a Marine Mammal Commission which would conduct continuing reviews and studies, and make appropriate recommendations to the Federal Government, relative to effective conservation and management of marine mammals. We endorse the concept of such an independent citizen commission, and we consider it to be of high importance to the success of such a body that it have effective access to the best available scientific expertise from both within and without Government.

Mr. Chairman, this concludes my statement. I will be happy to respond to any questions that you may have.

This concludes Chairman Train's prepared statement and since Chairman Train cannot be present, I will be happy to try to respond to any questions that you may have.

Mr. Dingell. Dr. Talbot, the Chair wishes to first express a high regard to you and also to Chairman Train who is most distinguished and effective and dedicated.

Your reading of Chairman Train's statement has been most helpful to the committee. It has been a most excellent and helpful statement.

Before I recognize my good friend and colleague, Mr. Pelly, I would like to request that you submit to us such amendments to the legislation as you would deem appropriate and as you have suggested to us in your testimony.

I believe it would be most helpful for us to have those cast in appropriate legislative forms, and I instruct you at this time that they are to be received by this committee as a drafting service and are not to be cleared through the Bureau of the Budget.

(The information follows:)

Suggested Amendments to H.R. 10420

Two specific amendments to H.R. 10420 were suggested in the testimony:

The first was to change the definition in Section 3(3) to include the Secretary of Commerce. For specific wording, reference should be made to Section 3(f) and Section 4(a) and 4(b) of the Department of Commerce Proposed Amendments of H.R. 10420 submitted as an attachment to the Department of Commerce Report of September 10, submitted to Chairman Garmatz.

The second amendment was to extend regulatory authority to the high seas. For specific wording, reference should be made to Section 5(a) and the regulations issued under Section 6 of the previously noted proposed amendments of the Department of Commerce.

Mr. Dingell. I yield to my good friend, Mr. Pelly.

Mr. Pelly. I want to apologize for being a little late. It was unavoidable, but I have had a chance to glance through the first part of Mr. Train's statement that you have presented to the committee.

Do I understand that you have a feeling that the proper approach would be to provide authority for protection of all species, and that the appropriate agency of our Government, I should say, would have authority to protect species where needed rather to get into any specifics as provided in this legislation?

What, in general, do you feel about total protection?

Dr. TALBOT. If I may take the second part of your question first, Mr. Pelly, total protection is a necessary tool of management when the objective of management is as we have described it, the broad maintenance of the balance, the stability of the environment, and the avoidance of the depletion or extinction of species.

There are a number of situations where total protection for a time and in some cases perhaps relatively permanently is required, but because environmental conditions are dynamic, it is frequently necessary to subsequently apply some other form of management in order to assure our original objective.

We have a number of situations on land where total protection of some species, for example, of the deer, has resulted in what amounts to a population explosion of that species, which has adversely affected its own environment and that of many of the other organisms, plants, and animals, with the ultimate damage to the species we were trying to protect.

What I am saying is that total protection is a very important management technique, but it is not the only management technique.

Mr. PELLY. You want a flexible system of protection, is that it?

Dr. TALBOT. Yes, sir; based on adequate scientific knowledge of the situation and of the principles of management.

Mr. PELLY. How about that flexibility? Could it be built into the so-called Anderson-Pelly bill approach?

Dr. TALBOT. Yes; it would appear to me that it could; that it is built into it through the mechanism of assuring a continuing scientific review of the status of these marine resources and of the means and method for their management as necessary.

Mr. PELLY. Thank you, Mr. Chairman.

Mr. DINGELL. Mr. Anderson?

Mr. ANDERSON. Thank you, Mr. Chairman.

First, Dr. Talbot, I want to thank you for your comments. I am almost afraid to ask any questions for fear you might upset the statement you made in support of H.R. 10420.

I was looking at your recommendation on page 6 where you say:

> We would recommend that the act be amended to extend authority, as appropriate, to the taking of marine mammals by persons under U.S. jurisdiction on the seas beyond the territorial waters of the United States.

What problems do we have in extending jurisdiction beyond our territorial waters,

Dr. TALBOT. Mr. Anderson, I am afraid I do not have any training in legal matters, in constitutional and international law.

I would be very happy, however, to seek the answer to that question from appropriate authorities and submit it to the committee subsequently.

Mr. ANDERSON. That would be all right. I would like to know just where we stand if we do extend it, what our problems would be, and what our jurisdiction actually would be in that area.

The second question I have is on the next portion where you recommend the consolidation to be delayed pending the completion of the Department of Natural Resources. I was wondering what the timing was on that.

Where are we in the Department of Natural Resources? Is it making any headway at this time? Can we expect that to be formed shortly?

Dr. TALBOT. Well, Mr. Anderson, that is another area where I am not the best authority; and again, I would be happy to find out and submit the answer to you all.

Mr. ANDERSON. I can readily see that, if the Department of Natural Resources is seriously on its way and is going to be active this year, then I think your suggestion is absolutely right; but if it is not moving fast, then I think our suggestion might be better, and that is the reason for the question.

Thank you, Mr. Chairman.

Mr. DINGELL. Thank you, Mr. Anderson.

Mr. Kyros.

Mr. KYROS. Thank you, Mr. Chairman.

Dr. Talbot, I welcome you to the committee.

In your testimony you favor Mr. Anderson's legislation for scientific management, H.R. 10420.

Has your department considered the possibility of having a moratorium on the killing of all these animals for a couple of years while you make a complete study, which apparently has not yet been made?

Dr. TALBOT. This alternative, Mr. Kyros, has not been considered specifically. The question has been raised particularly in connection with the other bill.

Mr. KYROS. You mean H.R. 6558?

Dr. TALBOT. Yes.

Mr. KYROS. And the related bills?

Dr. TALBOT. Yes, sir; at present there is in effect a moratorium on some of the marine mammals, those which are generally regarded to be those most seriously depleted.

I have mentioned the moratorium that we have placed on the formerly commercial species of whales, for example. As I understand H.R. 10420, one of the first priorities for the duties of this Commission would be a review of these various other species with the aim of recommending whatever action would be needed as quickly as necessary.

I believe it specifically refers to the whaling and the fur seal conventions.

At present from some of the information that has been provided it could be argued that an immediate moratorium was not necessary for the fur seals.

Mr. KYROS. Why?

Dr. TALBOT. But admittedly there are widely differing reports and opinions, and it is clear that a very careful review of the whole situation is needed and needed urgently.

Mr. KYROS. Well, one of the things that I have noted is that there is a wide difference of opinion.

I know, for example, that in Booth Bay Harbor, Maine, you can talk to a Maine lobsterman and say:

> "What about the seals out there, they look so pretty and cute." The lobsterman will say, "Their teeth are like steel and they cut up my nets; it bothers me and I would just as soon knock them in the head."

Then you find other people on the Maine coast who say that the seals should not be touched.

My point is, have you looked economically or otherwise at the effects of an absolute moratorium on most of these animals, while you are doing these studies? You apparently have not.

Dr. TALBOT. We have not looked into the full implications of that.

Mr. KYROS. Let me ask you this question: Do you know whether the Soviets have expressed any concern over our killing of polar bears? Do you know anything about that?

Dr. TALBOT. Yes, sir, it is my understanding that the Soviets have expressed concern about this on several occasions.

There is a polar bear group which met first some years back, at the invitation of the Bureau of Sport Fisheries and Wildlife I believe, and has been continuing under sponsorship of the International Union for Conservation of Nature and Natural Resources.

I held discussions with the president and director general of the IUCN last month specifically about the question of polar bears.

There is to be another meeting of the representatives of this working group in February of next year. They include representatives of all the nations which have polar bears in their waters or territories.

The IUCN is requesting that they at that time be prepared to make specific recommendations for the type of measures, national and international, that would be required.

As I understand it, the argument which the Russians have presented is that many of the polar bears which are harvested by the United States are bears which have been born, denned, on Russian territory, and they also point out that most of the rest of the bears which the U.S. harvests come from Canada.

Their argument, therefore, is that we are depleting their resource.

The Russians say that they have stopped all polar bear hunting because apparently they have badly overharvested them in previous years and they complain that why should they impose a ban on their people when we are profiting from it.

Mr. KYROS. Incidentally, why do we harvest the polar bear?

Why has the polar bear not been put on the endangered species list? Do you know the reason?

Dr. TALBOT. It was not on the endangered species list because the biologists believe, both from the State of Alaska and the Bureau of Sport Fisheries and Wildlife who had been studying the bears felt that the total numbers and the status of the population was such that they did not deserve to be on the endangered species list.

Mr. KYROS. Did we count the Russian bears as our own in that study I wonder?

Dr. TALBOT. I suspect we must have counted Russian and Canadian bears as our own because in effect, if you identify bears born elsewhere as not our own, then almost none of the bears we harvest are our own.

There is a counter argument made and that is that if the bears do come down on the ice to our waters during part of the year, that we are supporting them part of that year and therefore, we are not really harvesting somebody else's bears.

It would appear that clearly we are dealing with an international resource which must be treated and approached on an international rather than a national basis.

Mr. KYROS. Could we trade off some rights we want to the Russians, to engage in the killing of whales as against the bears? Is that possible?

Dr. TALBOT. This has been suggested in various international forums and the idea has received a great deal of support.

Mr. KYROS. Thank you very much, sir.

Thank you, Mr. Chairman.

Mr. DINGELL. Thank you, Mr. Kyros.

Mr. Potter.

Mr. POTTER. Dr. Talbot, without getting into the question of where the responsibility should lie, these animals are almost certain to be "managed" in one form or another. Would you not agree that when there is a Department of Natural Resources that it will make sense to treat all marine mammals within one coordinated program?

Dr. TALBOT. This would appear exceedingly logical and my understanding is that this was basically part of the original aim of the proposal for the Department of Natural Resources.

Mr. POTTER. In point of view of good management of living resources, in what circumstances is it desirable to cull or kill certain members of a given herd or species?

Dr. TALBOT. Well, Mr. Potter, "desirable" is a slightly loaded word, perhaps.

Looked at from the standpoint of the survival of the species and the maintenance of the balance of the environment, then it would be desirable or necessary to cull or harvest individuals of that species when the numbers of the species got to the point where they were having an adverse effect on the environment, particularly when they were, in effect, overgrazing or overusing and they had passed the carrying capacity of the environment for that species.

Mr. POTTER. This ties in to the question that Mr. Kyros asked you having to do with a moratorium. Looking at the Anderson-Pelly bill, it occurs to me that within the context of this kind of legislation it would be quite possible to have what amounts to a de facto moratorium, particularly when you consider that when there is a doubt as to whether we know enough about a given animal. In this case the burden of proof should be—and you I think will agree—on the person who wants to harvest the animal to show it is not going to do any bad things to the species or the stock.

Does this not seem to you to be an opportunity for whoever manages these animals to declare what amounts to a de facto moratorium on their taking?

Dr. TALBOT. Yes. My reading of the bill is that a moratorium would be one of the management options that could be recommended and acted upon under the terms of this bill; and, indeed, in some cases it might very well be one that would be.

Mr. POTTER. Are you suggesting that the criterion by which you establish what harvesting, if any, is going to be permitted, should be not what would make the most money for the harvester, but what would be best for the herd?

Dr. TALBOT. What will be best for the herd and the environment.

I feel this is exceedingly important because it is possible to manage a wild species for a maximum sustained yield under conditions which may alter or make less stable other parts of the environment.

Therefore, the maximum sustained yield in some cases may not be necessarily the yield level at which the optimum environmental balance and perhaps optimum yield of various other species may be maintained.

Therefore, coming back to the first part of your question, the objective of management, as we see it, should not be purely economic gain in the short or the long term, but environmental balance and economic gain consistent with that.

Mr. DINGELL. Would you yield at that point?

Mr. POTTER. Yes.

Mr. DINGELL. I note that is a very admirable point and I am not satisfied that the provisions of H.R. 10420, or, indeed, the other bills before us, necessarily exemplify that kind of philosophy in precisely that way. I do not want you to answer this question at this particular moment, Dr. Talbot, but, if you have an opportunity to reflect, would you indicate to us whether you feel an amendment could accomplish that particular point to H.R. 10420 or any of the other bills before us; and, if so, would you give us your counsel as to how that can be accomplished?

Again, I am requesting drafting service from the counsel to the committee without clearance through the Bureau of the Budget.

Dr. TALBOT. Be happy to try.

(The information follows:)

SUGGESTED AMENDMENTS TO H.R. 10420

Section 2 (2). Should be changed to read as follows (the addition is underlined, the rest of the words remain unchanged): "such species and population stocks should not be permitted to diminish *beyond the point at which they contribute effectively to the health and stability of the marine ecosystem, and consistent with this major objective, they should not be permitted to diminish* beyond the point at which they . . ."

Section 2 (5). Insert the word "ecological" in the second line between the words "significant" and "esthetic".

Following the word "management" at the end of the paragraph, add the following: "and that the primary objective of their management should be to maintain the health and stability of the marine ecosystem. Wherever it is consistent with this primary objective, a secondary objective may be to obtain an optimum sustained yield."

Mr. POTTER. From what you tell me I gather that you are suggesting that it would be appropriate and desirable in some cases to develop fairly rigid controls on the killing of any given animals from a herd or species before that herd or species becomes formally "endangered" within the language of the Endangered Species Act.

Dr. TALBOT. Absolutely, Mr. Potter. If we wait until animals are formally endangered it may be too late to save them and it frequently means that difficult, expensive, and questionable methods must be followed to attempt to save them.

The objective in my view should be to seek to avoid undue depletion and to keep them from getting on the endangered species list rather than to treat them once they are there.

Mr. POTTER. The last question I have to ask you is, Are you familiar—and I know you are because I asked you before the hearing—with the Convention on Fishing and Conservation of Living Resources of the High Seas, where, in the context of that convention, they define the term "conservation of the living resources of the high seas" as "the aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products."

Do you consider that this is an entirely adequate definition of the concept of conservation within the environmental concerns that we now recognize?

Dr. Talbot. No, I do not, Mr. Potter.

I feel that while that was adequate at the time it was formulated for the concepts that existed at that time, we now have a very much broader approach and we are concerned with the broader environmental stability.

We recognize that by dealing with one species in one way we may be having effects far beyond the pont of our management or far beyond this one species.

As I indicated earlier this morning, it may be possible to manage one species for the optimum sustainable yield for maximum economic gain on a sustained basis in a way which will harm or have various types of adverse effects on other parts of the environment.

Therefore, that definition in my view must be broadened to meet today's environmental awareness and understanding.

Mr. Potter. Thank you.

Mr. Dingell. Mr. Rountree.

Mr. Rountree. Just two questions.

Dr. Talbot, I would like to ask you your opinion or the opinion of the council if you have analyzed this legislation from the standpoint of exactly what would be the future role of CEQ assuming enactment of H.R. 10420 or legislation in this area—what leadership or guidance role will you take within the administration?

Dr. Talbot. Well, Mr. Rountree, I would not be in a position to give you a very definitive statement on this beyond indicating that I do not believe this would alter the responsibilities which the Council has under the National Environmental Policy Act and subsequent Executive orders and legislation.

This would be one of the areas of environmental concern for which the Council would, I believe, maintain an overview and coordination responsibility.

Mr. Rountree. My specific point is that under the Federal agency reports that have come up to us from the respective agencies, it appears that we are going to have, at least in your recommendations, a dual responsibility and authority between the Department of Commerce and the Department of Interior based upon a delineation of the type of mammal being protected or regulated.

I am just wondering whether or not you feel the Marine Mammal Commission or whether the Council will be in a position to resolve conflicting interests or try to obtain some type of a comprehensive broad thrust overview to insure that any future program is coordinated and developed adequately.

I assume this would be the possible role of CEQ in this area.

Dr. Talbot. Yes; I believe the responsibility you have described would be that of CEQ.

Mr. ROUNTREE. Now, following up your comments in regard to NEPA, do you see any problems in any of this legislation in regard to the future administration of NEPA?

Would the Marine Mammal Commission or the independent scientific committee contemplated under H.R. 10420 necessarily have to comply with the requirements of NEPA or would they be exempt from filing statements and provisions under section 102 and 103 of the act?

Dr. TALBOT. Well, again, this is a legal question which I am not very well qualified to answer.

I know of no reason at this point why they would be exempt.

Mr. ROUNTREE. Thank you, Mr. Chairman.

Mr. DINGELL. Thank you, Mr. Rountree.

Dr. Talbot, I wish to commend you for a very fine statement and helpful assistance that you have given this committee. Your good work at CEQ and before you went to that agency are well known to this committee and you are held in high regard by this subcommittee.

Just briefly could I ask a couple of questions. I believe it can be taken as axiomatic in scientific knowledge that the current state of information on ocean mammals, populations and so forth, is grossly inadequate; am I correct?

Dr. TALBOT. Yes, sir; in fact I would state it considerably more strongly.

Mr. DINGELL. Could you give us if you please, either at this time or later an adequate 5-year program for gleaning the information necessary to know enough about population stocks and population dynamics for a good management conservation program in this area?

Dr. TALBOT. We will be very happy to try to obtain these data and to present them to you.

Mr. DINGELL. We would need this information in terms of cash money, in terms of numbers of personnel and examples of the kind of programs necessary, both for individual species management and for the whole population of marine mammals together. It may be that you will want to call on other agencies, the State Department perhaps and perhaps the Commerce Department and perhaps Interior for participation in providing the information I am asking for.

I have the feeling I can say to you that none of the bills before us have an appropriate mechanism for triggering a really adequate research evaluation program in this area; your help to this committee in generating that kind of information for the marine mammals protection bill that we will come forward with will be greatly appreciated.

Dr. TALBOT. I will be pleased to try.

(The following was submitted in reference to the above:)

Given the nature of the program information requested, it has not been possible to develop a comprehensive set of recommendations in the limited time available. However, consultations have been held with representatives of the Department of Interior and Department of Commerce, and we understand that they are submitting separately to the Committee data which applies to their areas of responsibility.

Mr. DINGELL. I recognize we have the State Department with us here today but my rather limited association with the International Whaling Commission has led me to believe this is a grossly inadequate mechanism for protection of the whales.

Are you able to give us any comment on that particular point, sir?

Dr. Talbot. I think that the past record speaks rather clearly for itself.

Mr. Dingell When they brought these species to the brink of extinction, one must wonder if they have been awake or if they have been in existence, or if they have carried out their fundamental responsibilities.

Dr. Talbot. My impression, Mr. Dingell, is that because the international whaling convention emphasized the welfare and health of the whaling industry rather than that of the whales and their environment, and because, therefore, the makeup of the Commission from most countries, not necessarily ours, has been from leaders of the whaling industries of these countries, it has not been the most effective possible instrument to look after the health and welfare of the species and its environment.

Mr. Dingell. They certainly are not conservators.

I have a feeling they are either executors or executioners.

I am not quite sure which description they should bear, but I have a feeling that the protection of the whale species and marine mammals lies not in national action, but in international action.

In your view, does H.R. 10420 or any of the other bills before us have in it appropriate mechanisms for triggering an adequate international response and adequate international conference on the problem of conserving the whales, particularly the more endangered species?

Dr. Talbot. Well, in my opinion, Mr. Chairman, they exhort and provide the opportunity to the State Department to seek such international mechanisms.

Mr. Dingell. We are not giving the State Department a return date, so to say, that they are to do so and so within such a fixed date. We have tried that before with unsatisfactory results.

We gave them strict instructions in regard to the endangered species to return to us within a fixed date for an international conference, and we have, as usual, been disappointed in the labors of the State Department in that particular.

I wonder if we should consider an action of that kind should bear to the policy statement and the findings and declaration of policy in the bill.

Can you give us any guidance on that point?

Dr. Talbot. I think, Mr. Chairman, that is a point where I am not really qualified to comment.

Mr. Dingell. Now, can you give us a statement as to what would be an adequate International Whaling Commission in the sense of both the numbers of people, the powers, the responsibilities, and the duties of the Commission?

It is pretty obvious to me the Commission is not adequate in numbers, powers or personnel, or orientation, and perhaps you cannot give us an answer at this particular point, but it is something that would be very helpful to the committee, and I am sure it would be appropriate that you could draw on whichever of the executive agencies that you would so desire with regard to this particular point.

Frankly, I have the feeling that before the whales can be saved, we must first save the Commission or, at least get one set up. And your help in this particular will be appreciated.

Mr. Goodling?

Mr. GOODLING. Thank you, Mr. Chairman.

I have no questions.

Mr. DINGELL. Doctor, it is always a pleasure to have you before this committee.

You have been here many times, and in each instance, something good has come from you. Thank you.

Dr. TALBOT. Thank you, Mr. Chairman.

Mr. DINGELL. Our next witness is an old friend of the present occupant of the chair, Dr. Joseph Linduska, Acting Director, Bureau of Sport Fisheries and Wildlife, Department of the Interior.

Doctor, if you have any member of the staff that you would like to have present with you for today for comment or assistance to the committee, please bring them to the table with you.

STATEMENT BY DR. JOSEPH P. LINDUSKA, ASSOCIATE DIRECTOR, BUREAU OF SPORT FISHERIES AND WILDLIFE, DEPARTMENT OF THE INTERIOR; ACCOMPANIED BY HENRY HANSEN

Dr. LINDUSKA. Mr. Chairman, I have with me Mr. Henry Hansen, who is Assistant Chief of our Division of Management and Enforcement.

Mr. DINGELL. Mr. Hansen, we are happy to welcome you this morning.

Proceed, Doctor. Identify yourself fully for the record.

Dr. LINDUSKA. I am Joseph P. Linduska, Associate Director of the Bureau of Sport Fisheries and Wildlife, Department of the Interior.

Mr. Chairman and members of the committee, those of us who long have been involved in the conservation of natural resources welcome the increasing degree of public awareness of the monumental problems we face in resolving the very real and very pressing problems of our environment.

The unprecedented, worldwide expression of concern over the plight of the sea mammals is especially encouraging and speaks well for the possibility of increasingly mature and responsible environmental husbandry.

Since most of the members of this group of hitherto obscure animals spend much—or in some cases all—their lives on the high seas, they are truly an international resource. As such, their welfare—with some exceptions—has been everyone's responsibility and, unfortunately, as is too often the case in such situations, no one's.

As a result, some of these animals, such as some of the whales, presently face the possibility of becoming extinct. Others, such as the northern fur seal, have fared much better as the result of workable agreements between the governments involved, in their management and of the application of and adherence to scientifically developed and time-tested principles of wildlife management.

We are optimistic enough to believe—given the legislative authority and the necessary resources—that these principles can be applied to other species of ocean mammals so that the outlook for their future will be brightened. We are not opposed to the concept of complete protection in those cases where such action is warranted.

Pursuant to the Endangered Species Conservation Act of 1969, for instance, this Department has exercised every available authority to protect the great whales. Total protection, however, is not always an effective solution in itself.

Populations of wild creatures are not and cannot be isolated from other elements of the environment under the assumption that such isolation will insure their continued existence. On the contrary, wild animal populations are living, dynamic entities which act and react with each other and with their environment.

As ecologists, we would like to endorse the much quoted expression, "Let Mother Nature have her way." However, as 20th century realists, we know that to do so would be grossly irresponsible and would greatly decrease the likelihood of the survival of these animals. Man's alteration of the world's ecosystems and the increasing potential of technology to further alter them carries with it an obligation to apply these same technical skills to the task of helping these creatures survive the results of our other technological blunders.

Marine mammals should be conserved and managed to achieve the optimum ecological, esthetic and economic benefit to mankind. We support legislation which will achieve this objective.

These thoughts and our guiding philosophy are reflected in the Department's written reports on bills now pending before this committee.

A number of bills have been introduced pertaining to marine mammals, ranging in scope from absolute prohibition on the taking of all species to increased authority for study of selected species. We would like to comment on these proposals and to provide our recommendations.

H.R. 690 would direct the Secretary of the Interior, in cooperation with the States to conduct a comprehensive 4-year study of the polar bear and to the walrus for the purpose of developing measures adequate to assure conservation of these species on the high seas. A final report of the study, together with recommendations for further action, would be made through the President to the Congress no later than January 1, 1976.

The factors to be studied would include distribution, migration, and current populations, as well as the effects of hunting, disease, and food shortages. To fund these studies, there would be authorized an annual appropriation of $100,000 for fiscal years 1972–1975.

We recommend the enactment of H.R. 690, if amended, to delete the list on annual appropriations contained in section 2, and to prohibit the taking of polar bears and walrus on the high seas, except as may be permitted by the Secretary of the Interior. In this connection, the Department is now working toward an international agreement on the polar bear which would result in a sound program of circumpolar research and management.

If I may, Mr. Chairman, I would add that the provisions of H.R. 690 were discussed with the executive committee of the international just yesterday in Salt Lake City, where they are holding their annual meeting, and their executive committee endorses the provisions of H.R. 690 wholeheartedly.

Mr. DINGELL. That is the International Association of Game Fish and Conservation?

Dr. LINDUSKA. That is correct, Mr. Chairman.

In recognition of the need for reliable information upon which to base management programs, the Department has initiated necessarily limited studies of the sea otter, walrus, and polar bear.

While data on marine mammals generally is scanty at best, we do recognize that some species are in jeopardy as the result of environmental degradation.

There is a need for regulatory authority on the high seas and for international agreements to afford increased protection and other conservation measures throughout the range of these animals.

Enactment of H.R. 690 would provide specific authority to extend the scope of studies now being conducted. The additional regulatory authority proposed by our amendment would parallel identical authority now available for the protection of sea otters under title III of the Fur Seal Act of 1966.

This Department recognizes the need expressed by H.R. 10420 for a coordinated approach to the protection, conservation, and management of marine mammals and, as already noted, agrees that additional regulatory authority would, if properly conceived, contribute to the preservation of those species subject to a variety of natural and manmade incursions.

Reorganization Plan No. 4 of 1970 transferred to the Department of Commerce those authorities formerly exercised by this Department, Interior, through the Bureau of Commercial Fisheries. These include management activities and research related to fur seals, whales, and sea lions.

The Department of Commerce has recommended the enactment of H.R. 10420 with significant amendments. We concur in its recommendation for broadened general research and regulatory authority.

It should be noted that these authorities would supplement more specific provisions contained in other laws now applicable to both Departments.

H.R. 10420, as amended, would recognize the alinement of program responsibilities accomplished by Reorganization Plan No. 4 of 1970, and anticipates the establishment of the Department of Natural Resources.

Because H.R. 6554 most directly affects the program responsibilities of the Department of Commerce, we have deferred to that agency concerning the advisability of enactment. It should be noted, however, that the provisions of H.R. 6554 which impose an absolute prohibition on the taking of all marine mammals are inconsistent with the recognized principles of sound wildlife management.

Termination of the Pribilof fur seal harvest, conducted pursuant to international agreement, would jeopardize the livelihood of Alaska natives on the islands. Likewise, we defer to the Department of Commerce on House Concurrent Resolution 77, H.R. 4370, and H.R. 7463, all pertaining to the methods of harvest of the Pribilof fur seal.

We have recommended that the committee defer action on H.R. 7240, which contains several amendments to the Endangered Species Conservation Act of 1969. The bill purports to strengthen authority for the protection of species classified as being threatened with extinction and raises issues worthy of careful consideration.

As the result of our experience with administration of the endangered species legislation, we have undertaken a review of ways in which to improve enforcement of those acts, to supplement regulatory authorities provided therein, and to strengthen generally the statutory protection for species threatened with extinction in the United States and abroad.

Draft legislation will be recommended to the Congress following consultation with the States, interested organizations, and other Federal agencies.

We would be pleased to answer such questions as you and members of the subcommittee might wish to pursue.

Mr. Dingell. Doctor, the committee is very grateful to you.

Mr. Pelly?

Mr. Pelly. Yes. I would like to ask Dr. Linduska, as far as the effect on another great resource, the salmon, which my area is greatly interested in. As you know, only about 1 percent of the salmon, the little salmon that ever go to sea, ever get back into the rivers. And if we could increase them—in other words, the number that return, 1 percent, if we could increase them by that amount, we have doubled the amount of salmon and, more importantly, the amount of food that is going to be necessary to feed the increased population of the world.

Well, as I understand, the predators that reduce the salmon are these same mammals and animals that we have been discussing.

The other day, one of our colleagues, Representative Pryor, said that he would like to see the return to nature and get the balance of nature restored. That is the way I understood his testimony.

I thought after his testimony what would be the effect on the salmon, for example, if the seal and the otters and various other mammals are left free of any control at all.

Would that not have a very adverse effect on our salmon?

Dr. Linduska. This relates back to the question posed to Dr. Talbot and I can only follow along behind him and say amen to his interpretation of events.

I think without question that when we talk about optimum sustained harvest for one species we are not taking into account that this may not be an optimum situation for still other species.

As far as salmon are concerned, I think it pretty much goes without saying that the fortunes of these fish have gone up and down pretty much irrespective of the populations of some of the predators.

I think there is a great deal more involved as far as salmon welfare is concerned than consideration of predators alone.

At the same time I could not help but agree that to let nature take its course and allow these predators to increase without controls whatsoever would probably cut more heavily into the salmon stocks.

I do not think there is any doubt about it. But even more to the point is that in the case of seals and others as well, they do arrive at a point of saturation and we have witnessed heavy die-offs from various types of parasitism and other causes.

If they are not converted to some form of use through an annual harvest, a segment of the population is lost to other causes.

Mr. Pelly. In other words, you strongly support the proposal of flexibility in conservation and protection of our animal resources?

Dr. Linduska. I do, indeed.

Mr. PELLY. Well, I think some reference was made by Dr. Talbot to the economic resource. It is something more than that. When you talk about the salmon you are talking about the natives and their livelihood and their source of food and the danger of starvation.

We have to have, it seems to me, some balance to this program and it must be on some scientific basis regulated in order to keep that balance that we are all hoping to restore in nature.

Dr. LINDUSKA. The inroads of man on habitat and on the environment generally have been such that we are much too far down the road to turn back and allow nature to regulate as it will.

Obviously through a great many developments we have impaired or at least altered the environment so it is hard telling what we would come up with if we allowed nature to establish balances in this day and age.

Mr. PELLY. As you so well know, the salmon are a pretty good example of where you can have too many of a species.

The salmon return to a river to reproduce and if there are too many fish they dig up their own eggs and as a result there is a tremendous loss rather than a growth in the number of the salmon stocks each year.

Well, I think you have added a great deal to my thinking in this matter.

I know we are greatly concerned with coming up with some legislation, but I think it will have to be on the basis of an object, not necessarily economic, but the human values that are involved in keeping the balanced program and the only way I can see it is with some flexibility.

Thank you, Mr. Chairman.

Mr. DINGELL. Mr. Anderson?

Mr. ANDERSON. Thank you, Mr. Chairman.

Dr. Linduska, I notice in your comments on page 5 that you anticipate the Reorganization Plan No. 4 that the Department of Natural Resources will be coming into being shortly.

Is that legislation moving reasonably well in this Congress?

Dr. LINDUSKA. Mr. Anderson, yes, it is my understanding that it is under serious consideration and discussions are going on.

Mr. ANDERSON. If it is not successful, do you feel H.R. 10420 as it is presently written prior to this suggested amendment is satisfactory to cover that situation or are there problems?

Dr. LINDUSKA. I would have to orient that in space of time depending on how long we are talking about.

I would say if it is something unsure that it is likely not to occur for a good many years, why certainly some sort of stopgap legislation would be highly desirable.

If it is something relatively imminent, a year or 18 months, we could live with the present circumstances until it comes about.

Mr. ANDERSON. I have a question regarding sea otters. I am concerned and I am somewhat knowledgeable about them in California. We had a witness before us this last week that was testifying about the problems confronting sea otters as a result of pollution and accidents from boating and things like that in that area.

Can you give us a capsule of what the problem and the situation is confronting the sea otters, not just in California, but wherever they may be?

Dr. LINDUSKA. Well, of course, we are talking about two different sea otter populations, the southern population is in much shorter supply than is the northern sea otter population.

I think that we know probably a little more about the northern herd. Along about the turn of the century, the date was 1911, they were brought under an aggressive management program, including complete protection. They were down to a mere nub, practically an endangered species, and through prohibitions on taking and an aggressive program of transplanting, they have grown from a relatively few to a herd that now numbers, as I recall, in the neighborhood of 50,000.

Mr. ANDERSON. In what area now is the 50,000 located?

Dr. LINDUSKA. That is the northern herd, mainly off the Aleutians—Amchitka and eastward.

An aggressive program of transplanting was done, and they increased rather remarkably, as a matter of fact, to a point where in some areas they have obviously reached the saturation point, and the rate of annual increment has stabilized at about zero rated increase.

The State of Alaska has taken a harvest of about 500 animals a year for the last 5 or 6 years.

Elsewhere, where they are newly introduced in a new habitat, the rate of increase has been running about 10 percent with a maximum potential being about 14 percent. So it is a rapid growth, as you can see.

Several States have participated in transplant programs. Both Washington and Oregon have introduced animals from Alaska, and British Columbia has also arranged for introductions. In summation, the northern herd is doing quite well.

I am sorry that I cannot be more specific in response to your question about the southern sea otter population, the one off the California coast, but what you have mentioned, the effects on the environment and various disturbances, I understand present very much of a problem to that group of animals.

Mr. ANDERSON. Then you feel that perhaps there is a need for more attention to be given to the manner in which they are being handled in California, both by the Department and by the local State officials?

Dr. LINDUSKA. I am not fully competent to talk to this point, but I believe that population, least within our time frame, has always had a more restricted range; the opportunties for extending its range through transplants is not as great as it was with the northern herd.

I would like to refer that to Mr. Hansen for any comments he might have.

Do you know any more about that?

Mr. HANSEN. You have a very limited amount of habitat along the California coast for sea otters; and when we speak of a population of 50,000, 60,000, or 70,000 and upward in the north, I do not think by any stretch of the imagination we can ever conceive of populations like that along the California coast. The habitat is not there.

Mr. ANDERSON. What do you estimate the size of the present population of the southern sea otter?

Mr. HANSEN. I do not know what it might be. I have heard figures up to 1,000 animals, but I would not know.

The California Department of Fish and Game has jurisdiction over these animals, and they would have some pretty good population figures, as good as any available, but the potential in the northern part of the range is real good, and the population has not yet been brought back to anywhere near what that will support up there.

The ancestral range from Puget Sound northward clear out to the Aleutians could still support a lot more animals, and that is the purpose of the transplants that have recently been made, transplants which, incidentally, appear to be eminently successful.

Mr. ANDERSON. Thank you. Thank you, Mr .Chairman.

Mr. DINGELL. Mr. Goodling?

Mr. GOODLING. Thank you, Mr. Chairman.

Doctor, you say the Department is now working toward an international agreement on polar bear.

With what countries are you working?

Dr. LINDUSKA. Russia, Norway, Denmark, and Canada.

Mr. GOODLING. How much jurisdiction does the United States have on the polar bear range?

Dr. LINDUSKA. None at the moment. They come under jurisdiction of the State of Alaska out to the 3-mile limit; and beyond that, there is no jurisdiction. The Federal Government has no jurisdiction whatsoever at that point.

Mr. GOODLING. Are you having a reasonable amount of success and cooperation from these countries?

Dr. LINDUSKA. Yes; I think the international understanding is good. There is a very active interest in all nations concerned at the moment.

What we have done as a Federal agency is to employ a full-time man, Mr. Jim Brooks, to study the polar bear in Alaska. a second biologist employed by the State is working on the same problem.

Mr. Brooks has ben very active in the international considerations that have been given to polar bears, and we, of course, expect to continue that in every way we can.

At the moment, the dearth of knowledge that surrounds the polar bear is a real limitation on how we can manage the animal.

We are not even sure, Mr. Goodling, whether we are talking about one homogeneous herd or whether there are two or three or more subspecies or physiological races involved, some of which appear off of the European Arctic as compared to what we have off our Canadian and U.S. waters.

We have not even clarified that point at this time.

Mr. GOODLING. We originally passed a bill prohibiting the shooting of game by airplane. I do not believe many polar bear are shot from airplanes, but I know they shoot them from planes and then land, and it is rather simple to get your game doing that.

Do other countries do the same thing?

Dr. LINDUSKA. It mainly occurs in hunting off Alaska.

I might mention in that connection, the State of Alaska has legislation in the hopper which would prohibit the taking of polar bear by means of aircraft, beginning in 1973.

If this happens, it will bring a lot more order and consideration to the taking of polar bears off our Alaskan coast, but I should say in addition to that, we still need Federal legislation to give the type of protection to the animal that it needs because of the inability of the State of Alaska to exercise their authority beyond the 3-mile limit.

It is my understanding that some illegal kill is effected beyond that 3-mile limit and brought into this country. Since there is no existing law to cover it, there is nothing we can do about it.

Mr. GOODLING. Has Interior given any thought to placing polar bears on the endangered species list?

Dr. LINDUSKA. It has been talked about, but here again we are locked in by provisions in the Endangered Species Act. We must abide by a fairly strict definition of worldwide endangerment.

We cannot see the animal in that precarious a state at the moment, and it would be stretching the fact to do so. The provisions of the act pretty well prevent it.

Mr. GOODLING. What is the estimated world population of the polar bear.

Dr. LINDUSKA. I will have to have some help on that.

Mr. HANSEN. Well, as you can well imagine, precise data concerning maritime species such as the polar bear are difficult to get, and that is one of the purposes of this five-nation study team.

We have a reasonably good fix of the bear population off the coast of Alaska, numbering between 3,000 and 3,500 animals.

We assume they are two distinct populations, one associated with the Wrangel Island denning area in Russia, and the other associated with the islands of northern Canada. If we draw a line from Point Barrow to the North Pole, the bears to the west would be associated with the Russian maternity area. The bears to the east are associated with the Canadian Archipelago.

Mr. GOODLING. How much has that population declined in the last 15 or 20 years?

Mr. HANSEN. Our studies do not extend back that far. We have data that go back only to about 1966 or a little earlier. The figures we have put together today are essentially the same as those we had in 1966, but we have a great deal more confidence in today's figure.

This may be little more than a coincidence, but we do have reasonable confidence in today's figures off the coast of Alaska.

Worldwide, we consider the population of polar bears to be in the range of 10,000 to 15,000 animals, but there again, that is subject to a good deal of variation depending on who has accumulated the data and the accuracy of it.

Mr. GOODLING. Has there been an alarming decline?

Mr. HANSEN. Apparently not off the coast of Alaska.

We have some harvest data for 1969. The harvest by countries included 128 bear from Greenland, 346 from Norway, 406 from Canada, 298 in the U.S.A. That is off the coast of Alaska.

Of course, the season is closed in Russia. Last year the harvest in Alaska was approximately 200 bear, down from the year before, but Alaska controls the harvest by permit. They have only allowed 300 permits for each of the past several years. That is the most bear that can legally be taken.

Mr. DINGELL. What you are saying, if the gentleman will yield, is that in this vast expanse in which polar hunting is going forward, the Alaskans are having about two out of three success undertaking of polar bear.

Mr. HANSEN. Having a what?

Mr. DINGELL. About a two and three success. The hunters' success ratio is running about two out of three, about a 66 percent chance.

Mr. HANSEN. That is of the number of permits that are issued.

There is a possibility that there may be several permits acquired that are not used.

As a matter of fact, the majority of polar bears now harvested off the coast of Alaska are by the hunters employing aircraft.

It is illegal to shoot from the airplane, but they locate the bear and land to take it.

This technique is so well developed many guides claim 100 percent success for their clients.

Mr. GOODLING. One more question, Mr. Chairman.

What has been the total amount of funds allocated for research on ocean mammals since fiscal 1970?

Dr. LINDUSKA. It runs about $124,000, Mr. Goodling, in total.

I have a breakdown on that for fiscal year 1972; $84,000 goes to polar bears—I am sorry, $79,000 for polar bear, $3,000 to monk seal, a Hawaiian Island Refuge species, $4,000 to the walrus and $38,500 to the sea otter.

Mr. GOODLING. Is that a sufficient amount?

Dr. LINDUSKA. Not by any means.

Mr. GOODLING. You could do a better job with more money?

Dr. LINDUSKA. We definitely need more money if we are going to get the type of information we need to manage marine mammals.

Mr. GOODLING. You are not unique in that respect.

Dr. LINDUSKA. I am sure of that.

Mr. GOODLING. That is all.

Mr. DINGELL. Doctor, before I recognize Mr. Kyros I would like to have you submit to us the funds requested for management of all of the different marine mammals on a species-by-species basis for the last 5 years by your Department.

Dr. LINDUSKA. For the past expenditures?

Mr. DINGELL. Yes, sir, for the last 5 years and the funds made available to you for management of the marine species for the last 5 years.

I also would like to have the budget requests of your department for management of these different species over the past 5 years and I would like to have you also submit to us and again directly through the committee and directed to the committee without clearance through the Bureau of Budget, information with regard to what is an appropriate level of management in terms of money and the number of personnel for an adequate program for research and management on each of these particular species so that we can perhaps arrive at some comparison as to what has been done, what is being done and what should be done. I specifically direct you not to clear that through the Bureau of the Budget.

Dr. LINDUSKA. Since your latter request is in duplication of what you asked Dr. Talbot——

Mr. DINGELL. If you will cooperate with Dr. Talbot so we can have your judgment and his that would be very helpful.

Dr. LINDUSKA. Very well.

(Information to be supplied follows:)

FIVE-YEAR FUNDING LEVELS FOR RESEARCH ON MARINE MAMMALS

The attached table shows funding levels for research on marine mammals for the past five years. The decreases shown for the Marine Mammal Station in Fiscal Year 1970 and for the Alaska Polar Bear Station in Fiscal Year 1971 were appropriated but unspent during the year on these activities due to vagaries in Arctic weather conditions.

In 1968 funds in the amount of $160,000 were requested for Polar Bear Research. This request was trimmed to the $60,000 shown in the attached table. Otherwise no funds have been requested which were not appropriated.

Funds spent by Bureau of Sport Fisheries and Wildlife on marine mammal research, fiscal years 1968–72

1968	
Marine Mammal Station (Kenyon):	
Sea otter	$18,000
Walrus	3,700
Monk seal	2,500
Total	25,000
Polar Bear Station (Brooks)	60,000
Total	85,000
1969	
Marine Mammal Station:	
Sea otter	18,000
Walrus	3,700
Monk seal	2,500
Total	25,000
Sea otter (AEC—Amchitka)	60,000
Polar Bear Station	70,000
Cooperative Wildlife Research Units (Polar Bear—Montana)	4,500
Total	159,500
1970	
Marine Mammal Station:	
Sea otter	17,600
Walrus	3,500
Monk seal	2,400
Total	23,500
Sea otter (AEC—Amchitka)	60,000
Polar Bear Station	80,000
Cooperative Wildlife Research Unit (Polar Bear—Montana)	4,500
Total	168,000
1971	
Marine Mammal Station:	
Sea otter	18,800
Walrus	3,700
Monk seal	2,500
Total	25,000
Sea otter (AEC—Amchitka)	60,000
Polar Bear Station	70,000
Cooperative Wildlife Research Units—Arizona (AEC) sea otter	20,000
Total	175,000
1972	
Marine Mammal Station:	
Sea otter	20,000
Walrus	4,000
Monk seal	3,000
Total	27,000
Sea otter (AEC—Amchitka)	60,000
Polar Bear Station	79,000
Cooperative Wildlife Research Units:	
Alaska—Sea otter	6,500
Oregon—Sea otter	12,000
Arizona—Sea otter (AEC)	20,000
Total	204,500

BUREAU OF SPORT FISHERIES AND WILDLIFE NEEDS FOR EXPANDED RESEARCH PROGRAM FOR MARINE MAMMALS

POLAR BEAR RESEARCH

The Bureau's polar bear research program was funded at $70,000 in F.Y. 1968. The original request was for $160,000 which would have included studies on daily and seasonal movements as well as studies of distribution, abundance, and population composition. The program for F.Y. 1972 has increased to $79,000. Considerable work has been accomplished, as previously reported, in close cooperation with other countries and especially with the Alaska Department of Fish and Game. The current need is for expansion of the program, especially in the area of ecological studies, with emphasis on reproduction and population dynamics.

At the present funding level it is possible to continue tagging, collect data on movements of tagged bears, and to study morphological characteristics and growth rates. All these data contribute to the understanding of whether there are discrete sub-populations of polars in the Alaskan Arctic region, and by inference whether hunting in the Alaskan area has a noticeable effect on populations elsewhere.

At the present funding level, it is not possible to perfect and carry out promising censusing techniques which are further needed to asses the effects of hunting.

Still further, there is a need to conduct exploratory studies of certain pesticide and heavy metal residues in animals eaten by the Alaskan natives.

An additional amount of $100,000 per year for polar bear research would permit progress in all these areas, and would likely reduce the time required to distinguish sub-populations of polar bears in the Alaskan area from about 8 to about 4 more years.

With these funds, two additional biologists would be needed.

WALRUS RESEARCH

Walrus research has been conducted in the past. Results are being prepared as a technical manuscript. There is need, however, to continue monitoring of walrus populations and particularly to expand the level of such surveys. Aerial surveys of winter populations walrus need to be conducted more frequently than in the past. Continued research with emphasis on reproduction and population dynamics is needed. Additional funds required for this expanded program would be $85,000 which would be used for one additional wildlife biologist and for additional aircraft charter.

SEA OTTER RESEARCH

With expanded range of the sea otter (through transplants to the coast of northwestern United States) and with potential environmental problems related to the expansion of development in the heart of the range of the sea otter (chiefly oil development) there is a continuing need for detailed information on populations of this species. Current levels of research on the sea otter could meaningfully be expanded by the addition of a full-time wildlife biologist to work specifically on population dynamics and trends. Additional funds in the amount of $35,000 would be required.

BIOINSTRUMENTATION

For population trend information on all marine mammal species there is a significant potential for use of bio-instrumentation as well as for satellite tracking. Some use of these tools has been made, notably of radio-tracking with polar bears. Our Bureau is cooperating actively with NASA on EROS and other satellite programs. Such expanded activity as related to polar bears, sea otters, and walrus as well as other marine mammals will depend upon development of technologics. Funds to support such activity, and to make full use of this potential would involve $25,000 (additional funding might be provided by NASA.)

MUSEUM STUDIES

A much-needed contribution to the knowledge of marine mammals could be made by conducting detailed studies of the specimens of marine mammals available in the National Museum, as well as in other collections. This approach would include studies of taxonomy, morphology, and distribution based on specimens and specimen records. These studies could be accomplished with appropriate personnel added to the present staff of the Bureau's Bird and Mammal Laboratory housed in the National Museum. Additional professional (zoologist) and support staff (technician, secretary) would be required because none of the current staff has expertise with marine mammals. In addition, the collection of marine mammals in the National Museum is essentially uncurated. The estimated additional cost would be $35,000 per year.

MANAGEMENT PROGRAMS FOR MARINE MAMMALS

The research program above and management-related activities as discussed under item 6 below, would lead to development of management programs by 1976. Until such time, additional funds would be required to accomplish enforcement related to current regulations and management.

Walrus	$85, 000
Polar bear	100, 000
Sea otter	35, 000
Bioinstrumentation	25, 000
Museum	35, 000
Total needed	280, 000

ADDITIONAL FUNDS REQUIRED BY THE DEPARTMENT OF THE INTERIOR FOR ADEQUATE MARINE MAMMAL [1] PROGRAM

	Research		Management including enforcement		Total cost per year
	Personnel	Cost	Personnel	Cost	
19-C.Y.	6	[2] $280, 000	8	[3] $423, 800	$703, 800
19-C.Y.+1	6	295, 000	8	222, 000	517, 000
19-C.U.+2	6	300, 000	8	224, 000	524, 000
19-C.Y.+3	6	300, 000	8	222, 000	522, 000
19-C.Y.+4	6	300, 000	8	224, 000	524, 000
Total cost for 5 years					2, 790, 800

[1] Program covers Polar bear, walrus, and sea otters.

[2] Cost breakdown: Walrus, $85,000; polar bear, $100,000; sea otter, $35,000; bioinstrumentation, $25,000 and taxonomy, $35,000.

[3] Includes cost of equipment (airplanes and boats).

Mr. DINGELL. Mr. Kyros?

Mr. KYROS. Thank you, Mr. Chairman.

After the chairman's shattering request, Dr. Linduska, I hope you are able to answer the few questions I have for you.

As I listened to you speak, I wondered if all the people in your Department, the scientists and others, are free to speak their own minds or are they constrained by what they think the Department might want them to say?

How do you feel about that, sir?

Dr. LINDUSKA. We are a pretty independent lot in Interior, particularly in my bureau, and if anyone ever fails to speak his mind, I am not aware of it.

Mr. KYROS. I truly believe that from the people I have met from Interior.

We have been talking about the Pribilof fur seal herd and there has been some mention of heavy metal and other pesticide poisoning in the area, causing the seals to abort and the herd to diminish.

Is there any evidence of environmental pollution in the area causing the deaths of these seals?

Dr. LINDUSKA. People in the Department of Commerce would be closer to the problem and in a better position to comment on it.

I know that the heavy metal pollution problem is one that is cropping up in unexpected places. Whether or not it applies to the fur seal or not, I do not know. If so, it has not reflected itself in the population trend.

Mr. Kyros. What about the California sea otter population? Is there any known effect of pollution on them?

Dr. Linduska. Here again, we are talking about a species that has been studied almost entirely by the State of California.

What Mr. Anderson has brought out, the matter of harassment and pollution, is in line with my understanding of it, but I cannot be much more specific than that.

If it would be helpful to you, we would be glad to check that out with the State and insert it in the record.

Mr. Kyros. As I understand your testimony this morning, you are in favor of scientific management of the herd. Is that right?

Dr. Linduska. Right.

Mr. Kyros. Is it not a fact that although the sea otter were accorded protection by the State of California and the State of Alaska, this particular otter has become virtually extinct because of the trade in luxury furs?

Dr. Linduska. Well, the California herd has either remained fairly stable—or gone down—in the face of continued protection, but this is not the case with the northern herd.

As I mentioned, beginning in 1911 a fairly aggressive program was developed for the northern herd which included complete protection and a program of transplant that came along in later years. This animal has responded amazingly. It has gone from a relatively few hundred to a total herd population that numbers around 50,000 animals and has increased to the point in some areas where they are apparently at the saturation point in terms of what the environment will accommodate.

We have two different problems, really, and one has come along very well and the other has not.

Mr. Kyros. As I understand it, scientific management is what the herd and environment will sustain. The second problem will be the economic demand for the particular animal.

Have you consulted with the SBA or Commerce or anyone else before making judgments?

Have you considered the economic side of how to manage a particular herd?

Dr. Linduska. We have not. Of course, in connection with the endangered species legislation we were in close touch with a broad segment of the fur industry and others and took into account their views. And I think in the course of testimony on that bill we pretty well convinced a lot of those folks who up to that point were inclined to go out and get the last spotted cat—we convinced them it was to their own long-term advantage to render some protection to the animals at this point, thereby perpetuating this resource into the future.

There is no question economic incentive can give us a big leg up on the management of these animals.

That was what occurred with the sea otter. This animal whose fur was extremely valuable was in very strong demand. It was a fur of royalty 100 years ago and economic considerations certainly were in the direction of supporting management, to bring those animals back, to restore them.

Unhappily, with the whims of the fur trade, now that we are at a point where a harvest can be made, the demand is—not nearly what it was when we started out.

Mr. Kyros. Do you feel that we have an adequate, broadly based program for the research on marine mammals?

Do we have one currently?

Dr. Linduska. No, we do not. Without exception, I do not think there is a single species about which we know enough to do an intelligent job of management.

Mr. Kyros. In light of that statement, would it not be better to lean on the side of conservation and have some sort of moratorium on most of these animals until we get all the facts?

Dr. Linduska. That might apply to a few. I should qualify my response to that.

In the case of the sea otter, the northern sea otter, while there remains a good deal to be learned about them, I think we know enough to do a fairly intelligent job of management and to declare a moratorium on that animal at this point would not only be unnecessary in terms of the animal welfare, but could work to its disadvantage.

Mr. Kyros. Some people have expressed concern to me that nuclear testing at Amchitka would have some damaging effects.

What effect, if any, would that have on the sea otter?

Dr. Linduska. I am afraid I cannot answer.

Mr. Kyros. No other department has asked you to comment on that?

Dr. Linduska. Yes, the Atomic Energy Commission underwrote a fairly ambitious research program in hopes of anticipating what would occur.

This included tests on confined sea otters as an example and while they have been fairly reassuring as to what might develop, I think it represents one of the unknowns. I do not think that anyone can really say.

Mr. Kyros. Thank you, Mr. Chairman.

Mr. Dingell. Mr. Anderson?

Mr. Anderson. Thank you, Mr. Chairman.

I have one more question. On the moratorium that Mr. Kyros talked about here, a previous witness said that one of the good points of H.R. 10420 would be that the use of the moratorium would be a good tool to use.

Now, you have stated the moratorium could be a disadvantage to the northern herd of the sea otter.

Dr. Linduska. This would also apply to fur seals, the northern fur seals.

Mr. Anderson. The northern fur seals, yes. Are there any other marine mammals to which the moratorium could be a disadvantage?

Dr. Linduska. I think the sea otter have come along to a point where, if we did not continue a nominal harvest in some areas, we would be losing those animals to other causes and with that, there might be enough degradation of habitat as a result of overpopulation to work to the further disadvantage of the animals.

Those are the two that stand out in my mind.

Mr. ANDERSON. The fur seal and the sea otter?

Dr. LINDUSKA. Possibly the walrus, Mr. Hansen says.

Mr. ANDERSON. Plus the walrus?

Mr. HANSEN. Possibly. If I may interject a comment here, you speak of a moratorium on some of these northern mammals that are not entirely maritime, that are associated to a certain extent with the land. We must consider the welfare of the Natives, the aborigines of the arctic areas.

These Natives utilize the animals and are highly dependent upon some of these for a livelihood, food, clothing, shelter, and for boat materials.

Any moratorium would certainly have to provide for the welfare of the Natives. It would have to allow for harvest by the native population. Otherwise, we could cause irreparable harm to the welfare of the Native people.

Mr. ANDERSON. Are there any other marine mammals that would fall into this category outside of fur seals, sea otter, and walrus?

Do you think we have covered the list fairly well there? Would the moratorium of 2 years that Mr. Kyros asked you about, be a disadvantage?

Dr. LINDUSKA. I would like to think a little about that. Off the top of my head I would say that covers it pretty well.

Mr. DINGELL. Dr. Linduska, there was a very large reported washup on the coast of Alaska of dead walrus this year.

Can you tell us how many were washed up and whether there was any investigation that took place, what the source of death was?

Dr. LINDUSKA. I do not have the details on that, Mr. Chairman. I do not know whether Mr. Hansen might be able to inform us on that point but, if not, we will be glad to insert it in the record following a complete check of the facts.

(The following was supplied for inclusion in the record:)

SEPTEMBER 15, 1971.

Dr. JOSEPH LINDUSKA,
Acting Director, Bureau of Sport Fisheries and Wildlife,
Washington, D.C.

DEAR DR. LINDUSKA: In the course of the marine mammal hearings on Monday, the subject of walrus protection came in for a fair amount of discussion, as I am sure you will recall. I enclose a clipping from the Anchorage paper last month which describes the hunt in some detail.

I would appreciate your reviewing this article and providing comments on it to my Subcommittee, for inclusion in the record. I am particularly interested in any reaction that you may have to the description of the hunting technique, described as "random firing into the herds." Such hunting methods, if accurately described, would appear to be as wasteful as they are inhumane, and it seems to me that someone should have and exercise the authority to prevent this type of hunting by any person subject to U.S. jurisdiction.

Your response will be appreciated.

With every good wish.

Sincerely,

JOHN D. DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation.

U.S. Department of the Interior,
Fish and Wildlife Service,
Bureau of Sport Fisheries and Wildlife,
Washington, D.C., October 5, 1971.

Hon. John D. Dingell,
Chairman, Subcommittee on Fisheries and Wildlife Conservation, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

Dear Mr. Dingell: This is in response to your letter regarding an article in the Anchorage Daily News about wasted walrus carcasses. We are aware of this problem which results from traditional and admittedly inefficient methods of harvest.

Under the Alaska Statehood Act of 1959, jurisdiction over that State's resident wildlife for the purpose of management and regulation was given to the State of Alaska. However, we would certainly favor regulations which would result in more humane and efficient harvesting of walrus. The improvidence of the Alaskan Eskimos in their harvest of the walrus is well known, and is a feature of their life way which seems to have been heightened as a consequence of their contact with the white man's technology.

As you know, we have conducted research on walrus in Alaska. Despite the wastefulness of native hunting methods, total harvest, including unretrieved animals, appears to be well within proper limits. A study completed recently by the Alaska Fish and Game Department estimates the walrus population at a minimum of 90,000 animals, of which about 12,000 are taken annually by American and Russian hunters. It pointed out that the Pacific walrus population is apparently increasing slowly.

Alaska provides complete protection for the walrus along the coastal area surrounding Bristol Bay, but in other Alaskan waters and coastal areas walrus may be taken anytime. A resident is allowed one bull, except where he is dependent upon the walrus for food. In that case there is no limit upon the number of bulls he may take, and he may also take up to five adult cows or subadults (either sex) as well as orphaned calves to satisfy this need.

It is our understanding that "random firing into the herds" is less of a problem than the use of underpowered weapons. Wounded animals escape from ice floes and they are then lost. Thus the problem is not one of willful negligence but of insufficient equipment and/or expertise in harvest techniques. As previously stated, however, harvest regulations are considered to be within the province of State authority.

Please let us know if we can be of further assistance.

Sincerely yours,

M. A. Marston,
Assistant to the Director.

Mr. Dingell. Is walrus within your jurisdiction or within Commerce?

Dr. Linduska. That is in Commerce. Research management and enforcement actually rests with the State.

Mr. Dingell. May be you want to give us a comment, Mr. Hansen.

Mr. Hansen. I am not sure the number of walrus that may have washed ashore this year is any more or less than in any other year.

This has to do with the native harvest, native utilization, their method of hunting.

Now, as you know, they hunt these animals on the ice floe. The walrus follow the ebb and flow of the Arctic ice pack. The Eskimo hunts them on the edge of the ice, and for every animal they shoot, they hunt them with modern weapons, and for every one they shoot and are able to retrieve, unfortunately, there are animals that are shot and lost. They fall off the ice into the water and sink before the natives can get to them and retrieve them.

These are the animals that subsequently bloat and drift ashore as the ice moves on northward. Winds out of the west drift them up onto the Alaska coastline.

Mr. DINGELL. The story suggested that, it was on the order of thousands of these animals that drifted ashore this year. I saw the figure of 11,000. I think it was probably high.

Do you know what the number was?

Mr. HANSEN. No. I have not seen a figure. It could be more this year than normal but, unfortunately, it is a result of what is a normal native harvest of these animals.

Mr. DINGELL. It does not sound very normal when you are having this amount of waste.

Mr. HANSEN. It would not be normal if that number is true. I cannot believe the number would be nearly that great because the herd is not large enough to sustain that.

Mr. DINGELL. That does not necessarily mean it was not that large since the native is not considering sustained yield questions.

Mr. DINGELL. I am going to come back to that one thing. We have communicated with the Interior Department, and in the report from Interior, dated September 8, I would urge you to consider this report on H.R. 10420, signed by Mr. Pecora. He says additional regulatory authority, if properly conceived, would contribute to the preservation of these species, subject to a variety of natural and manmade incursions. And he goes on and says, we have a Federal program responsibility under the official Wildlife Act of 1956, not only for the polar bear, but for the walrus and sea otter.

So, Interior does have jurisdiction over these species.

I want to get right down to the hard point about the amount of kill of these walrus.

Now, if the natives are going out there and conducting one great big slaughter and retrieving one out of several, you people are going to have to come up with something to hold that wastage down.

I do not know how you are going to do it, but if you can figure out a way, we will welcome it.

What is the retrieval of these species, 1 in 5, 1 in 2, or do you know?

Mr. HANSEN. Unfortunately, we do not have particularly good information.

Mr. DINGELL. You have jurisdiction of these species.

Mr. HANSEN. This is one of the areas in which we desperately need research.

Dr. LINDUSKA. We only have $4,000 a year.

Mr. DINGELL. It does not appear to me that it takes a Ph. D. to tell you the percentage of walrus recovered. All you have to do is ask the Natives. You do it with deer and elk and other species.

We are going to have to get some controls of this.

What is the simplest program for finding out what the retrieval of walrus is and the wastage?

What is a simple program?

Mr. HANSEN. Perhaps the most simple, direct method would be to have people that we could send out, live with the natives, and observe.

Mr. DINGELL. What about simply appointing a few natives to do this kind of chore for you? You could do that fairly cheaply.

Mr. HANSEN. Yes, except it would probably be somewhat akin to asking the fox to guard the henhouse.

Mr. Dingell. That is common in government today. I have known about that for years.

I am going to ask you to give us, if you please, the outlines of the program that will give us some intelligent idea of what the wastage of this species is.

I want the outlines of an intelligent administrative program for that, and I want you to tell us if you have not got the authority necessary to do it, if you need legislative authority, or if you need an amendment to H.R. 10420 to accomplish that.

And I direct you at this point to submit a mandatory language to derive the specific authority to manage the natives' taking of the walrus, if need be, to hold this wastage down.

I have no objection to letting them take it, and if they are going out with snowmobiles and high-powered rifles, you had better do some modern management to see that this wasting of the walrus is stopped.

You submit appropriate suggestions to this committee for administrative action to reduce this waste, and also to specifically request any amendatory language to H.R. 10420.

(The information to be supplied follows:)

Recommendation of Taking of Walruses and Polar Bears

Walruses are principally harvested on the pack-ice on the high seas, outside of territorial waters of the State of Alaska.

If H.R. 690 is amended as recommended to give the Secretary of the Interior authority to regulate the taking of walruses and polar bears on the high seas, no additional legislation will be required.

Mr. Potter. You said it might not be appropriate to have a moratorium for adequate management of walrus and sea otter.

What evidence do you have to support that?

Dr. Linduska. As Mr. Hansen pointed out, the walrus is satisfying a genuine need among the native tribes.

As far as the otters are concerned, the prospects of arriving at a point of overpopulation during a period of moratorium, and with it accompanying die off would not be the most desirable way of handling things.

Mr. Potter. Do you have any evidence to indicate the walrus are anywhere close to the point that they would suffer problems of overpopulation?

Dr. Linduska. The question there is not so much overpopulation as it is the hardship it would offer natives during a time when we know them to be of satisfactory numbers.

Mr. Potter. What do you consider satisfactory?

Dr. Linduska. Well, just the observation that their populations are being fairly well sustained.

For an absolute nose count, I could not provide that.

Mr. Potter. Is there, in fact, any scientific evidence to indicate how many walrus there are?

Dr. Linduska. I am sure that there have been some studies made.

Mr. Hansen, are you acquainted with that?

Mr. Hansen. Several years ago, there was an aerial survey made over the icepack.

The walrus were in the Bering Sea before the ice had retreated up around the Arctic.

As I recall a figure at that time, something between 150,000 and 120,000 walrus were sighted.

Now, how much of the total population this would have represented, I am not sure. I am not sure how complete and accurate the survey was.

Mr. DINGELL. Well, as a matter of fact, I am going to ask you to please, Mr. Hansen, give us the information as to population levels, age groups of the different species marine mammals, and also the age groups taken. And I will direct at this time, in order to save the time of the committee, that Mr. Potter, our counsel, be in communication with you in regard to the information we need in these particular areas.

I will ask you also to submit to us information as to this particular study to which you are alluding.

I do not think you want to sit there and tell me this was an adequate study as to the population levels of the walrus, the condition of the herd.

It is not a comparison with regard to the ancestral population of walrus and what they were, nor does it give us a breakdown as to the age groups or aging, of the future prognosis of walrus population.

Mr. HANSEN. I am the first to admit, as I have, that we desperately need information in this area.

Mr. DINGELL. I want to tell you that I am impressed to know that you folks are coming in here and supporting the legislation we have before us with regard to survey of population of walrus and polar bears.

I have, for years, been trying to get legislation through, and Interior has always said we have plenty of authority and do not need it.

I said if you have plenty of authority and do not need it, why are you not doing it. I never got an answer to that particular point.

I do not think you have an adequate survey of populations of any species of these marine mammals, whether you are talking about polar bears, any of the fields of the walrus, or any of the other species now, do you?

Dr. LINDUSKA. I would be inclined to take exception to that, Mr. Chairman.

Mr. DINGELL. You do not have it on the walrus.

Dr. LINDUSKA. The walrus may be a possible exception. But I feel very confident as far as the fur seal and sea otter are concerned we are on safe ground.

Mr. DINGELL. That is two species.

Can you name any other species on which you have adequate information?

Dr. LINDUSKA. That is the extent of my unqualified statement.

Mr. DINGELL. And, as a matter of fact, there are some problems with regard to the fur seal. The number has actually declined significantly in recent years.

Dr. LINDUSKA. In terms of a moratorium?

Mr. DINGELL. I am not talking moratorium. I am talking population levels and information with regard to population levels.

I am not indicating a moratorium. That is one of the questions before the committee.

The question I am getting to you is, do you have information with regard to the fact that the fur seal population has declined significantly during the last few years?

Dr. LINDUSKA. I would have to defer to Commerce on that.

Mr. DINGELL. It shows a few years ago they let them take pregnant females.

Dr. LINDUSKA. That harvest was to preclude a die-off that related to overpopulation on the breeding ground.

Mr. DINGELL. Well, I am going to recognize Mr. Potter again.

I want him to get some figures with regard to population, and I also want him to get some figures with regard to the age groups of population, like the polar bear which are being harvested. And I notice there is a striking decline in the age limit of the polar bears being harvested.

Mr. POTTER. To pursue this question of the age levels of the polar bears, have you seen any statistics coming from Alaska on this?

Dr. LINDUSKA. I know they reveal a declining size and an age ratio running more to young animals.

Mr. POTTER. Indeed they do. The average age of males killed in 1966, the first year for which we have figures, was 8.1.

In 1969, the last year for which we have figures, it was 6.3. That is a bear with one and a half breeding seasons.

The average age of females declined from 1966 when it was 6.4 years old to 5.4 in 1969. That is one breeding season.

With permission of the Chair I would ask that this information be included in the record at this point.

Mr. DINGELL. Without objection, so ordered, and the Chair would request that Dr. Linduska and the Interior Department submit to us at their earliest convenience comments as to the accuracy of the figures and any suggestions or comments that you care to make with regard to these particular matters.

The Chair will direct the counsel to be in communication with our good friends in Interior so that they can have a full opportunity to make a satisfactory and adequate commentary on the matters alluded to.

(The information referred to follows:)

THE POLAR BEAR

Based upon degrees of longitude, less than 8 percent of the United States' territory fronts on the Polar Basin (Fig. 1), which is the home of the polar bear. The information presented in Fig. 1 also shows that this species is not known to den in Alaska (United States' territory). Polar bears nevertheless do occur regularly off Alaskan coasts. Those occurring off the Arctic coast seem to originate from dens located in the Western Canadian Arctic (Bank's Island); and those off the northwestern coast, abutting on the Chukchi Sea, from Soviet Siberia, notably Wrangel Island.

Statistics are available concerning the Alaskan polar bear harvest from 1961 to 1969. They show for *harvest* and *sex ratio:*

TABLE 1.—POLAR BEAR HARVEST AND SEX RATIOS, 1961–69

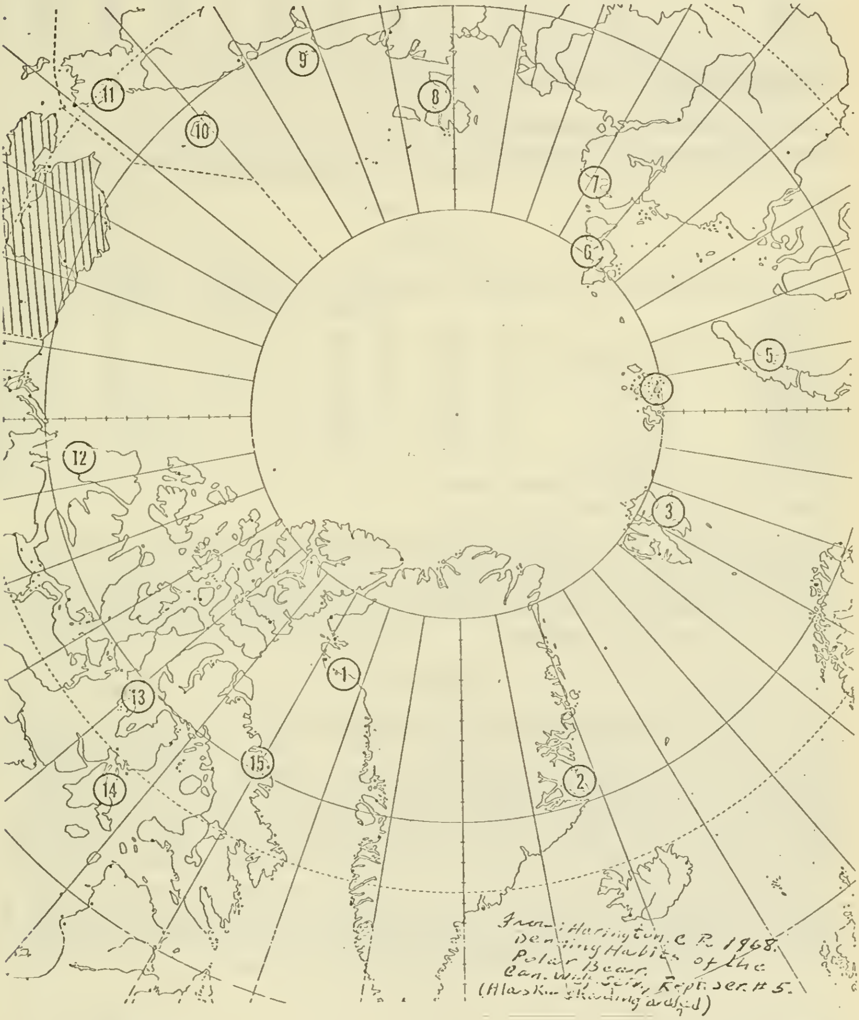
Year	Nonresidents		Resident white		All sport hunters		Resident native		All hunters	
	Number	Percent male	number	Percent male	Number	Percent male	Number	Percent male	Number	Percent male
1961	70	93	59	57	129	77	23	52	152	73
1962	78	85	103	60	181	70	16	50	201	69
1963	106	88	57	68	163	81	22	68	189	79
1964	142	89	86	60	228	78	23	69	253	77
1965	159	89	116	64	275	79	21	50	296	76
1966	195	89	152	66	347	79	52	46	399	74
1967	124	97	42	69	166	90	25	50	191	80
1968	184	84	56	66	240	80	111	61	351	74
1969	227	76	44	63	290	69	27	56	298	72

Note: Table from Brooks and Lentfer, 1969. Polar Bear Research in Alaska, Paper No. 15, IUCN publ., new series.

Sport hunters are limited to one polar bear per permit, and the number of permits issued is limited to 300. Cubs, and sows with cubs cannot be taken. The open season extends from February 1 to April 30.

The Arctic-wide harvest for 1969 totaled 1,179 animals, of which in addition to the 298 shown in Table I for Alaska, 407 were taken in Canada, 128 in Greenland (Denmark), and 346 in Norway. The Soviet Union, which has no open season, but a few are taken from time to time for zoos and for scientific study.

More younger bears are said to be taken presently than formerly. This view is based upon skull measurements and upon layering in the cementum of a premolar tooth. Table 2 (below) presents a summary of the data concerning skull size; and Table 3 (below) does the same for the estimation of average age based upon layering of the tooth cementum.



From: Harington, C. R. 1968.
Denning Habits of the
Polar Bear.
Can. Wildl. Serv., Rept. Ser. #5.
(Alaska shading added)

FIGURE 1.—Distribution of polar bear core areas (important denning and cubbing places): (1) Northwestern Greenland, (2) Northeastern Greenland, (3) Eastern Svalbard, (4) Franz Josef Land, (5) Novaya Zemlya, (6) Severnaya Zemlya, (7) Taimyr Peninsula, (8) New Siberian Islands, (9) Bear Islands, (10) Wrangel Island, (11) Chukchi Peninsula, (12) Southern Banks Island, (13) Simpson Peninsula, (14) Eastern Southhampton Island, (15) Eastern Baffin Island, (5, 6, 7, 8, 9, and 11 are of secondary importance.) Dots indicate weather stations.

TABLE 2.—AVERAGE SKULL SIZE[1] IN INCHES OF POLAR BEARS TAKEN BY AIRPLANE HUNTERS BASED IN ALASKA, 1966–69

Hunting area	Nonresident				Resident—White				Total			
	Male		Female		Male		Female		Male		Female	
	Size	N[2]	Size	N[2]	Size	N[2]	Size	N[2]	Size	N[2]	Size	N[2]
Chukchi Sea:												
1966	25.1	139	21.0	9	24.1	48	21.4	20	24.8	187	21.5	29
1967	24.9	79	21.2	6	23.1	14	22.1	4	24.6	93	21.6	10
1968	25.2	121	21.3	12	24.5	24	19.1	4	25.0	145	20.8	16
1969	24.5	119	21.3	24	24.0	10	21.3	3	24.4	129	31.3	27
Arctic Ocean:												
1966	24.1	25	20.5	6	22.4	44	19.9	26	23.0	69	20.0	32
1967	23.6	22	20.0	5	22.6	14	19.9	7	23.2	36	19.9	12
1968	23.7	23	21.1	12	23.0	5	19.7	10	23.6	28	20.4	22
1969	23.4	20	21.2	20	22.5	10	20.0	7	23.1	30	20.9	27

[1] Skull size is greatest length without lower jaw plus greatest width.
[2] N = Number measured.

Source: Table from Brooks & Lentfer, 1969. As above.

TABLE 3.—AVERAGE AGE BASED ON TOOTH CEMENTUM LAYERING OF POLAR BEARS IN HUNTER HARVEST, 1966–68

	Male			Female	
	Airplane				
	Nonresident	Resident	Ground	Airplane	Ground
Arctic Ocean:					
1966	10.1 (16)	7.2 (13)	10.6 (4)	6.6 (8)	5.0 (6)
1967	7.7 (17)	6.0 (10)	4.5 (2)	7.0 (8)	5.0 (2)
1968	8.1 (21)	6.4 (7)	5.6 (28)	5.8 (22)	6.2 (23)
Chukchi Sea:					
1966	9.1 (64)	7.0 (13)		7.2 (14)	3.0 (1)
1967	7.0 (39)	7.0 (7)		6.0 (12)	
1968	8.2 (76)	5.8 (21)		8.3 (8)	4.0 (3)

Note: Numbers in parentheses are numbers in sample.

Source: Table from Brooks & Lentfer, 1969. As above.

The time span covered by the data in Tables 2 and 3 is probably of too short a duration to show any conclusive trend.

Concerning the matter of population, the real weakness continues to be the difficulty of making a reliable census of the total Arctic population, or any of its regional (national) segments.

THE WALRUS

The walrus of the north Pacific has responded well to the protection it has received since the turn of the present century. This population presently is considered an underexploited and increasing one. Closely comparable counts of this animal are difficult to make, since most of them "haul out" on ice floes. Sometimes the massing of the floes is such that great numbers of walrus are congregated in a relatively small area. At other times, these animals are widely dispersed. Added to this are the hundreds of square miles in which no animals are seen at all.

A Bureau biologist (Karl Kenyon) reported (by telephone) the results of four surveys made by himself and an associate. All the walruses seen in a 1-mile strip (one-half mile from each side of the plane used) were counted as were also the individuals seen beyond. Their results follow:

Survey No.	Time	Count	
		1-mile strip	Total
1	Feb. 23–Mar. 2, 1960	3,914	4,382
2	Aprl 23–30, 1960	3,323	5,223
3	Mar. 20–30, 1961	4,929	5,475
4	Apr. 16–23, 1968	4,666	8,547

The results of the first two surveys were adjusted to provide an estimate of density on a per square mile basis, which led to an estimated population of 60,000 to 100,000 walrus in the north Pacific.

Management of the walrus is administered by the State of Alaska. Except in Bristol Bay, which lies to the northward of the Alaskan Peninsula, where no hunting is permitted, there is no closed season on walrus. A resident is allowed one bull, except where he is dependent upon this species for food. In this instance, there is no limit upon the number of bulls he may take; and he may also take up to five adult cows or subadults (either sex) as well as orphaned calves to satisfy this need (Alaska Hunting and Guiding Regulations, 1970–71).

The hunting bag is taken largely by the resident native population. The ice floes used by the walrus for hauling out provide most of the hunting sites. Insular coasts, used by the walrus for hauling out, provide additional hunting areas.

Hunting by the native population has been considered wasteful, for so many of the animals shot are lost. This happens when shot animals are able to drop into the water. A real effort is made to retrieve these, but if an animal is still very much alive, it is dangerous. The hunters than must exercise considerable caution lest the wounded animal destroy their boat.

Several years ago, a Bureau biologist reported on a study he made of walrus hunting at Little Diomede Island in the Bering Strait (Kenyon, 1960. Oryx, 5(6) 337). He reported the hunting result thus:

Walrus killed	245
Walrus taken (48 percent)	117
Walrus lost (52 percent)	128

More recently, a biologist of the Alaska Fish and Game Department reported (Burns, 1965. The Walrus in Alaska):

Year	Walrus harvested	Total kill
1959	1, 153–1, 453	2, 700–3, 600
1960	2, 300	4, 500–4, 600
1961	1, 201–1, 486	2, 402–2, 792
1962	1, 263–1, 353	2, 829–3, 064
1963	1, 594–1, 725	3, 443–3, 713

It is plain from the harvest-kill statistics of these two reports that approximately half of the walrus bagged are lost. Recently it was reported in the *Alaska Daily News* that some 260 walrus had been washed up on the beaches in the Kotzebue area. Concern was expressed about the stench from these rather than about the dead and wasted animals.

Lost animals have been accepted as a characteristic feature of walrus hunting. Persons who are humane and thrifty in their attitudes find this waste objectionable. In the interest of conservation it would be most desirable to seek to avoid this loss. Educational endeavor among the native peoples with conservative and efficient hunting practices as a central concern has been one approach suggested.

Despite the improvidence of traditional practices, it is believed that the walrus is increasing in numbers. According to the Alaska Fish and Game Department, the Pacific walrus population with a reproductive rate of 14 percent and a mortality rate of 13 percent, is slowly increasing. This, however, is not to be taken as justification for wasteful hunting practices, or for relaxing present protection of cows and calves (Burns, 1965, as above).

RESEARCH ON MARINE MAMMALS NOW BEING CONDUCTED BY BUREAU OF SPORT FISHERIES AND WILDLIFE

SEA OTTER

Bureau personnel at the Marine Mammal Biological Laboratory in Seattle are carrying on the following studies of sea otters:

Reproduction and growth

An adult male sea otter has been held in captivity at the Point Defiance (Washington) Aquarium since November 1965 and has been the subject of study by a Bureau biologist. On 31 July 1969, four more otters were brought from Amchitka Island, Alaska, to the aquarium. The new arrivals were an adult female, two subadult females, and a subadult male. It may now be possible to obtain additional information such as length of the gestation period and rate of growth and development of young.

Bureau studies have developed methods of transporting and keeping sea otters in captivity and have aided in the design of pools completed at the Point Defiance Aquarium in Tacoma, Washington, which now has the only facility in the world built specifically for sea otters. The facility consists of two separate enclosures, each having a pool. The big pool is 20 feet in diameter and 5 feet deep, with a capacity of 5,000 gallons; the smaller pool is 14 feet in diameter and 4½ feet deep, and holds 2,000 gallons. Eighty gallons of filtered sea water, partly fresh and partly recirculated, enters the two pools each minute. The enclosures are connected by a passageway with doors that are used to control the location of the otters. The otters may be viewed from above or below the surface.

The sea otter in California

The number of sea otters in California is increasing, according to the best counts available, at a rate of about 5 percent a year. This rate is similar to that of certain Alaskan populations. About 1,014 sea otters were in California in 1969. In future years, it seems probable sea otters will continue to spread into suitable habitat within their former range. If the commercial abalone fishing is to continue at the present rate, the population of sea otters will probably need to be controlled in certain waters.

WALRUS

Current research on the walrus is confined to surveys in the Bering Sea (including other marine mammals, also). Four aerial surveys of marine mammals have been conducted in recent years in the Bering Sea and to the north in a small southern portion of the Chukchi Sea. Results of the four surveys are being analyzed. In general, they reveal concentrations of the mammals in certain geographic areas in both national and international waters. There are other areas where marine mammals rarely occur. Within the large zones used by marine mammals, ice conditions influence local distribution and abundance. In recent years the U.S.S.R. has shown increased interest in harvesting seals and walruses on the ice floes. The growing scarcity of the ribbon seal and past experience with walrus depletion indicate that proper harvesting of these species will require additional knowledge and agreements between countries if they are to be conserved as a renewable resource in international waters.

MISCELLANEOUS

In addition to the activities named above, research personnel of the Bureau, located at the U.S. National Museum, are engaged in studies of taxonomy, distribution, morphology, and reproduction of various marine mammals. Most of the specimens available for these modest studies are found stranded along the Atlantic coast.

Bureau personnel are active in studies of the Monk Seal, an endangered species occurring in Hawaiian waters.

SEA OTTER STUDIES BY COOPERATIVE WILDLIFE RESEARCH UNITS

BUREAU OF SPORT FISHERIES AND WILDLIFE

Oregon Cooperative Wildlife Research Unit.—The Oregon Cooperative Wildlife Research Unit has undertaken a study to evaluate the initial success of attempts to introduce sea otters into their former range along the Oregon coast. This study will attempt to determine the distribution of the otters released in 1970 and will monitor the post-release movements and behavior of the otters released in 1971. Information will also be sought on reproduction, the habitats favored by otters, and the foods utilized.

Funding: $11,928.00, Division of Wildlife Research.

Alaska Cooperative Wildlife Research Unit.—The Alaska Cooperative Wildlife Research Unit has initiated a study on the ecology and behavior of sea otters in Prince William Sound. This study will gather information on the feeding behavior, diurnal and seasonal movements, activity patterns, and intraspecific competition of sea otters in Prince William Sound, a possible termination point of the Trans-Alaska Oil Pipeline.

Funding: $1,000.00, Division of Wildlife Research; $5,500.00, Federal Aid in Wildlife Restoration Funds, Alaska Department of Fish and Game.

Arizona Cooperative Wildlife Research Unit.—The Arizona Cooperative Wildlife Research Unit is conducting a study on the behavior and ecology of the sea otter at Amchitka, Alaska. A census of the otters is being conducted and detailed behavioral patterns are being documented. An attempt is being made to identify and determine the effects of various environmental factors and natural and imposed stresses on the behavior and physiology of the sea otter. An evaluation will be made of various stimuli that might modify sea otter behavior to minimize mortality at the time of the proposed underground nuclear test.

Funding: $20,000.00, Atomic Energy Commission.

THE POLAR BEAR

RESEARCH ACTIVITY OF THE BUREAU OF SPORT FISHERIES AND WILDLIFE

Background.—The great white bear of the Arctic, the polar bear, has long been known to mankind. Polar bears, Eskimos, and igloos together commonly are associated with the frozen reaches of the Far North. This bear has been exploited, mainly for food and fur, by the aboriginal peoples with whom it coexists geographically. This exploitation, however, appears never to have threatened the continued existence of the species.

In recent years, notably since World War II, the polar bear has come to be much sought as a trophy by non-native hunters. The utility of small aircraft for hunting this bear far out on the Arctic ice floes, as well as increased affluence, has done much to stimulate this interest. The native peoples, concurrently, have found a profitable market for skins for trophy purposes. Increased exploitation has resulted, which in turn has aroused a concern for the welfare of the species.

It quickly became necessary to consider the application of conservation practices directed to assuring the future of the species. Information basic to the achievement of this objective, however, was not available. For example, the size and structure of the population were unknown. So were the extent of the animals' travels, their use of food materials, and the duration of their reproductive life. These shortcomings in basic infomation emphasized the need for an increased effort in pertinent research.

Research activity

Objectives.—

1. Ascertainment of the number of polar bears using American waters;
2. Age and sex composition of this population;
3. Extent and pattern of travels;
4. Population productivity;
5. Extent of denning by pregnant sows on the American Arctic ice pack and along the Alaskan coast;
6. Develop aerial methods for enumerating the population.

Methods.—In general, standardized methods are used in pursuing the research objectives. These include the immobilization of the bears with an appropriate drug so that they may be handled for marking, weighing, and extraction of one of the vestigial premolar teeth. The marking, of course, individualizes an animal, and the tooth is used to ascertain age.

Infra-red scanning equipment was tested for utility for aerial censusing. This is a new development, which seems to offer some promise, but which also is expensive.

Progress

Early work.—In recognition of the need for reliable information upon which to base a management program, personnel of the Bureau of Sport Fisheries and Wildlife published in 1959 (Trans. 24th North American Wildlife Conference) a preliminary study concerning the status and management of the polar bear. This study showed the known bag of this species for Alaska, whose territorial waters encompass the American segment of the circumpolar range of the species, to be 206 bears in 1957 and 128 for 1958. It also stressed the need for legislation providing for the control of American nationals (polar bear hunters) on the high seas.

Later, in 1965, the Bureau of Sport Fisheries and Wildlife convened the first international meeting devoted to polar bear conservation. Represented at this meeting, held at Fairbanks, Alaska, was a delegation from each of the nations fronting on the north polar basin, namely, Canada, Denmark, Norway and the Soviet Union besides the United States.

Based upon the combined effort of this Bureau and the State of Alaska, it now was possible to increase the definitiveness of information concerning this species. It was shown that this bear does not regularly come ashore in Alaska, which precludes regular denning and foraging in this land: that this species no longer occurred on St. Matthew Island as it did in 1800; that the bag of 1965 of 292 bears contributed about $450,000 to Alaskan economy: that the bag from 1960 to 1965 averaged about 75 percent males: that the average litter size in March and April since 1958 for cubs of-the-year was 1.86 individuals, and for cubs older than one year was 1.58 animals.

With the engagement in December 1967 of a wildlife biologist intimately acquainted with Alaskan conditions, this Bureau began its first specialized study of the polar bear. This biologist and another from the Alaska Department of Fish and Game work in a complementary manner, the Bureau biologist centering his attention on the bears of the Chukchi Sea region off the west coast of Alaska, and the Department of Fish and Game biologist centering his attention on the bears of the Beaufort Sea region off the north coast of Alaska. Their work, it should be noted, is being carried out cooperatively with wildlife biologists representing Canada, Denmark, Norway, and the Soviet Union, which in turn is being coordinated by the International Union for the Conservation of Nature and Natural Resources headquartered at Morges, Switzerland.

This group has found that the Arctic-wide harvest of polar bears is approximately 1.250 animals annually. In 1969, the harvest by nation included 128 by Greenland (Denmark), 346 by Norway, 407 by Canada, 298 by the United States, and a few by the Soviet Union for zoos or scientific study. The Soviet Union has otherwise had a closed season on this species since 1956. The bag in Alaska is controlled by that State which restricts the number of permits issued to 300. It is generally illegal to bag cubs or females with cubs.

Field work by the American biologists suggests that the bears taken by hunters in the Chukchi Sea region probably come from Wrangel Island as a natal area, and those taken in the Beaufort Sea region probably have as their natal area islands in the western Canadian seas.

Their work shows also that the average age of the males bagged is decreasing since 1966. This means that younger animals are making up more and more of the bag, but not necessarily that the population is being jeopardized. This is a trend, however, which needs to be closely watched with a view to altering the hunting regulations in favor of this bear when the need is indicated.

Reaching a reliable estimate of the total regional population of this bear remains elusive. The sparse distribution of the individuals, the shortness of the season for field work, and the frequency of violent weather all contribute to this difficulty. The Bureau's biologist recently tested an infra-red scanning system for making a count of polar bears. Application of the method is expensive and the result so far is not entirely satisfactory. It is believed, however, that the system is promising.

Increased funding would facilitate the more rapid cumulation of data basic to good management.

Mr. POTTER. Dr. Linduska, the information I am talking about was derived from the proceedings of the various conferences held in conjunction with the ICUN's concern with polar bears.

Coming back to the question we talked about, walrus and now sea otters, I think I have read all or most of the papers Karl Kenyon has written on sea otters and I see no indication there except possibly with regard to Amchitka that the population of sea otters has reached their natural level any place in Alaska or in California.

Are you aware of any information that I have not seen that indicates that they are at this maximum population level?

Dr. LINDUSKA. No, I think your reporting is accurate, to my knowledge.

Amchitka, by the slacking back of population increase, would certainly suggest they are arriving at the saturation point, and this is one of the common phenomena that occurs as an animal reaches a point of saturation with its habitat.

Mr. POTTER. There is an additional problem now and that is the question of environmental contamination which has a particular effect on sea otters because it tends to clog their fur and make the fur, in effect, permeable to water so that they die from chilling.

Is this not a possibility that the environmental deterioration, not the absence of adequate forage, is proving the limiting factor on the sea otters?

Dr. LINDUSKA. That could well be. The result is the same.

Mr. POTTER. They are dead—sure. The question we are asking now is would a moratorium for a year, 2 or 3, be appropriate, and it seems to me that if they are not dying out because of limitations on their habitat, that it is not appropriate to say that a moratorium might not be an appropriate management tool.

Dr. LINDUSKA. The point I am making is that irrespective of the environment with which they were originally provided, if, in fact, there is deterioration and we are losing more animals than normal, you would still gain nothing from a moratorium. You would merely save more animals to die within the same limited environment.

Mr. DINGELL. Doctor, on the species like the sea otter which are relatively stable insofar as their geographic area is concerned, it seems to me that they ought to be moved around and transplanted to the limit of our ability and that we ought to use that form of harvest to restock other areas as opposed to trying to commercially harvest these species.

Am I correct in that, Doctor?

Dr. LINDUSKA. Both programs are going forth. There has been an ambitious program of restocking and there undoubtedly still may be habitats remaining which would be suitable for their occupancy.

Mr. DINGELL. There are habitats up and down the California coast. There has only been modest restocking in Washington and Oregon.

Dr. LINDUSKA. Enough to establish the animals.

I would not be prepared to say if the California coast would be a suitable environment for them.

Mr. DINGELL. There is a native population there and Mr. Potter tells me it is rather broadly placed, the ancestral population that exists there.

Whether or not the Alaskan species can thrive in California waters is another question, but that is a matter that should be explored and tried before we begin commercial harvesting.

Dr. LINDUSKA. Well, if the native population within that range is not prospering and is at a standstill level I do not know that putting new animals in the environment would avail us much good.

Mr. DINGELL. We have the fundamental problem that we do not know the answer to that particular question.

Dr. LINDUSKA. That is so, but I am not sure it would be desirable to introduce additional animals.

There is a great reluctance on the part of professional people to introduce into the range of a native species or population one that may be foreign to that range. You could very well wind up losing the native species or population.

That is one of the objections to introducing exotic creatures.

Mr. DINGELL. Now, I would like to ask you a question.

Is not one of the major predators of the sea otter in California, the illegal shooting that goes on from power boats because of their poaching on abalone and so forth?

Dr. LINDUSKA. I have heard that report.

Mr. DINGELL. Has this been investigated by your agency?

Dr. LINDUSKA. Not to my knowledge, Mr. Chairman.

Mr. DINGELL. Investigated by any other agency at the request of your agency?

Dr. LINDUSKA. I am sure the California fish and game people would have information on that point.

Mr. DINGELL. Would you inquire of them on that particular point at the insistence of the committee?

Dr. LINDUSKA. I would be happy to.

(The information follows:)

THE SEA OTTER

In California, the sea otter occurs presently in a coastal zone extending from Carmel to Cayucos, and for 100 miles seaward. This zone has been set aside by the State of California as an inviolate refuge for this species. In this area, it is estimated that there are 1,014 to 1,020 individuals. This population developed from the several animals present in the 1930's to its present level at an exponential rate, i.e. in accordance with the classic sigmoid growth curve. It is believed that this population now has reached the saturation level, for some dispersal is occurring with the result that animals are establishing themselves elsewhere along the California coast.

Rather than being a declining population, it has been a vigorous and increasing one. Its present stability in addition to active dispersion support this view. There is space in a fully occupied habitat for no further increase in density. Animals in excess of this are obliged to disperse.

About two-thirds of the animals seen off California, are seen outside the 100-mile refuge zone. This is one cause for friction with abalone fishermen· These fishermen contend the sea otter is depleting their fishery. Poaching by some of the fishermen is one result of this friction. Last September (1970) three were fined $1,000 each for shooting and killing three sea otters.

The California Fish and Game Department undertook a 3-year study of their sea otters and the abalone problem in 1968. One of its objectives is to acquire information to support recommendations to the State legislature on a management bill for the California sea otter population.

In recent years, sea otters from the Aleutian (Alaska) population have been translocated to coastal areas of southeast Alaska, British Columbia, Washington, and Oregon. Each of these translocations appears to be successful.

For several years the State of Alaska has been "harvesting" animals from the Aleutian population, where a condition of excess population exists. Carcasses of individuals found along beaches, upon examination were found to be emaciated and their stomachs contained remains of sea foods, notably sea urchins, which seem not to provide sufficient nourishment to sustain their lives. These carcasses usually are of animals that either are young or have severely worn teeth. The more vigorous animals are able to catch fish. This is the situation which leads Alaskan biologists to consider some of the Aleutian sea otter populations to be excessive for the supporting capacity of their habitat. Aleut Indians are engaged by the Alaska Fish and Game Department to do the harvesting, which is carried out under the supervision of departmental biologists. (This information is largely from Karl Kenyon via telephone.)

Mr. DINGELL. Mr. Rountree?

Mr. ROUNTREE. Thank you, Mr. Chairman.

In order to comply with the provisions in our House rules I wonder if you could submit for the record a 5-year cost estimate for all the various pieces of legislation which the committee is considering now?

In addition, you have indicated that your Department is involved in the preparation of some draft legislation pertaining to additional authority and responsibilities under the Endangered Species Act.

If you are not able to do so now, perhaps you could submit for the record exactly how these draft recommendations or draft proposals, which supposedly are to be sent out to Congress at a later date, would either complement or be contrasted with any of the legislative proposals which this committee is considering now.

Do you have any time frame as to when this draft legislation will be sent up?

Dr. LINDUSKA. It is in final process of review right at the moment. It is on my desk right now.

Mr. ROUNTREE. Are you able at this point in time to give us a general idea of what it is intended to do?

Dr. LINDUSKA. Yes; the main provision would be to relieve us of the locked-in situation that we now face wherein we can deal only with species at a point of endangerment.

We would like to see that liberalized to the extent that we could begin to give consideration to all forms of wildlife when they are not only endangered but in a rare capacity.

As Dr. Talbot mentioned in his testimony, it is highly desirable that we do this.

If we wait until a point of actual endangerment we are working against tremendous odds whereas if we can recognize that an animal is in a bad plight sometime in advance of that final day, we stand a far better chance of doing whatever needs to be done to preserve it.

That would be the main consideration.

Mr. ROUNTREE. I am a little bit concerned that in your agency reports commenting on each of these specific bills before the committee, the Department of Interior has supported the concept of a study whereas the Department of Commerce has supported enactment of H.R. 10420 with appropriate amendments.

Is there any inherent conflict between the two positions of Interior and Commerce and, if so, how will they be resolved in any type of legislation this committee reports out?

Ostensibly, you would continue to have dual authority and dual responsibilities with Department of Interior under the Endangered Species Act in regard to all ocean mammal species, I assume, in addition to your existing authority with the polar bear and walrus and, I believe, the sea otter, whereas the Department of Commerce would have a responsibility for fur seals and other ocean mammals.

How is this conflict to be resolved?

Is it a proper approach to take or should there be some comprehensive overall lead agency concept as opposed to a dual agency responsibility within two departments as envisioned in a number of these bills?

Do you have any comment on this?

Dr. LINDUSKA. First separating out marine mammals, per se, and then endangered species as a secondary consideration, I think there is no question that the responsibility in terms of management, investigation, and everything that goes with bringing proper recognition to management should be in one pocket.

Presently, this is provided for as far as marine mammals are concerned, in the legislation which you mentioned.

I do not see any opportunity for bumping heads too frequently with the endangered species being a separate consideration, but at the same time, this, of course, will all be resolved if the Department of Natural Resources should come into being.

Mr. ROUNTREE. So the position of the Department of Interior would be, in essence, to maintain somewhat the status quo as far as jurisdictional responsibilities are concerned over particularly ocean mammal species, at least in this point of time, with the broad range look at the fact that, assuming implementation of the Department of Natural Resources, all this would be brought in under one umbrella.

Dr. LINDUSKA. That is as I see it.

Mr. ROUNTREE. Thank you.

Mr. DINGELL. Doctor, the committee is grateful to you for your very helpful statement and we thank you and Mr. Hansen for being present with us this morning.

Mr. ANDERSON. Could I make one last request that when you are getting the information on the herd size of the various mammals, will you also, in relation to your statement that the walrus is a genuine need of the natives, will you also give us the size and location of the native population that is dependent upon the walrus for food and clothing?

Dr. LINDUSKA. We'll be happy to.

(The information follows:)

NATIVE POPULATION

Residents of the following 9 Eskimo villages seasonally hunt and utilize walruses as part of their subsistence living. The villages are all located along the west coast of Alaska in Bering Strait and the Chuckchi Sea.

Village:	*Number residents (1970 census)*
Gambell	372
Savoonga	364
Teller	220
Brevig Mission	123
Wales	131
Diomede	84
Shishmaref	267
Kivalina	188
Point Hope	386

Mr. ANDERSON. That is all.

Mr. DINGELL. Doctor, I am sure you will see that the information requested is submitted to us.

Thank you very much.

The Chair notes our next witness to be Mr. Donald McKernan and also his associates, Mr. Stuart Blow and Mr. William Salmon.

Gentlemen, the Chair is happy to comply with your wish. Would you like to testify now or return at 2 o'clock?

We will do whatever you would like.

Let us terminate at this time then. The Chair will recess the hearing until 2 o'clock and Mr. McKernan, we will be more than happy to have you as our first witness at that time.

The Chair will direct the staff to communicate with Mr. Pollock, the Deputy Administrator of the National Oceanic and Atmospheric Administration to advise him that we will be hearing him at approximately 3 p.m.

(Whereupon, at 12:05 p.m. the subcommittee recessed to reconvene at 2 p.m. of the same day.

AFTERNOON SESSION

Mr. DINGELL. The subcommittee will come to order.

This is a continuation of hearings on H.R. 6558 and H.R. 10420 and similar bills, the so-called Harris-Pryor bills and the Anderson-Pelly bills and on preservation of marine mammals.

Our next witness is an old friend of the subcommittee, Mr. Donald McKernan, Special Assistant to the Secretary, Department of State.

Mr. McKernan, we are happy to welcome you back for any statement you choose to give.

The Chair notes that you are accompanied by two of your associates and if you wish, identify them and have them sit at the table with you or call on them as you desire for any statement.

STATEMENT OF AMBASSADOR DONALD L. McKERNAN, COORDINATOR OF OCEAN AFFAIRS AND SPECIAL ASSISTANT FOR FISHERIES AND WILDLIFE TO THE SECRETARY OF STATE; ACCOMPANIED BY STUART BLOW, WILLIAM SALMON, AND JAY BLOWERS

Mr. McKERNAN. Thank you, Mr. Chairman. I am Donald McKernan. I am Coordinator of Ocean Affairs and Special Assistant for Fisheries and Wildlife to the Secretary of State.

With me I have Mr. Stuart Blow from my office, and Mr. William Salmon and Mr. Jay Blowers from the Bureau of Scientific Affairs in the Department of State.

Mr. Chairman, members of the subcommittee, I am pleased to have the opportunity to appear before you in connection with your consideration of various bills having to do with the protection and conservation of marine mammals. Most of these bills call for action with respect to existing or new international arrangements for the conservation of marine mammals, and the Department of State has accordingly a very real interest in the progress of your consideration of legislation in this field.

It is safe to say that the United States has been for years a leader in the development of international arrangements for the conservation of living marine resources. One of the very first treaties on the subject—the Fur Seal Treaty of 1911—came into being largely as the result of U.S. concern over the very serious decline in the populations of northern fur seals. Since that time, the United States has negotiated a number of treaties and agreements relating to the conservation of living marine resources and has, in addition, undertaken discussions and exchanges of scientific data regarding other species of international concern, for example, walruses, ice seals, and polar bears.

For the most part, our international arrangements have dealt with animals which are of actual or potential economic benefit to man. The basic concept underlying these arrangements is that of conservation as defined in the convention on fishing and conservation of the living resources of the high seas which was adopted by the United Nations Conference on the Law of the Sea, 1958, and to which the United States is a party. Article 2 of that convention states:

> As employed in this Convention, the expression "conservation of the living resources of the high seas" means the aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products.

In addition, however, with increasing knowledge of and concern over the adverse impact of man's activities on his environment, there has come an increasing recognition of the need for protection of those species of wildlife which, though not commercially exploited by man in the usual sense, are endangered or rare. The United States is moving forward in this field as well. In addition to our domestic legislation for the protection of endangered species, with which you are familiar, the Department of State, in cooperation with the Department of the Interior, will convene in Washington in April an international plenipotentiary conference for the purpose of concluding a covention on the conservation of rare and endangered species of wildlife. As a basic working document for the conference, the International Union for the Conservation of Nature and Natural Resources has prepared a draft convention on the export, import, and transit of certain species of wild animals and plants. The present draft, incidentally, provides for controls over a number of species of marine mammals.

It has been our experience that other governments are generally receptive to proposals for negotiations looking to agreements either for the conservation for rational use of species of economic benefit to man or for the protection of endangered species—so long as a reasonable scientific case can be made that international measures are in fact needed. We do not intend to imply that the scientific evidence must be conclusive. It must, however, be sufficient to inspire concern in the minds of reasonable and knowledgeable men. Without facts to support them, such proposals as that which would place a complete prohibition on the killing of all ocean mammals would, we believe, find little acceptance among the international community.

Of the various bills before you, one type would place such a total ban on the killing of ocean mammals, would have the Secretary of State seek worldwide agreement to this end, and would express the sense of the Congress that the existing fur seal treaty be permitted to expire. Another bill would ban the taking of all species of seals and contemplates international agreement to this effect. Still others would require that humane methods be used in the killing of fur seals and that no females and pups be taken. Finally, one of the bills would provide for selective management of ocean mammals by species and stocks and would seek negotiations to encourage international arrangements for marine mammal research and conservation.

To the best of our knowledge, the scientific evidence is not available to support a blanket prohibition on the killing of all species of ocean mammals or even all species of seals. However, H.R. 10420 with appropriate revisions could provide for the necessary research and regulatory authority to afford a foundation for international negotiations as may be needed.

Thank you, Mr. Chairman. I will be glad to answer any questions the committee might have.

Mr. Anderson (presiding). Thank you, Mr. McKernan. I commend you on a very fine statement.

Mr. Pelly?

Mr. PELLY. Thank you, Mr. Chairman.

Mr. McKernan, a few days ago at these hearings one witness representing a well-known organization indicated opposition to the fur seal treaty under which the fur seals of the Pribilof Islands are managed.

They went on to say that they would like to see this treaty lapse and would rather have no treaty than to have the same treaty that we have. Of course, they wanted a new treaty to take its place.

I expressed some concern as to the vacuum that would be created without any treaty that covered the control of pelagic sealing in particular because I felt that, possibly, certain nations would start killing the seal indiscriminately off of the Pribilof Islands as they migrate.

Would you comment as to what might be your opinion as to the danger to the seal herd if there was no treaty at all?

Mr. MCKERNAN. I would agree with you, Mr. Pelly, I would have the same concern if there was not an effective treaty in being.

The fur seal treaty in my judgment has been the most successful of any of the international conservation agreements, barring none, and it has been looked at by other nations in the world as an example of a successful conservation treaty.

I can see no reason whatsoever for us withdrawing from such a successful treaty.

It was started about 1911, and about this time according to the best estimates, which were not very good, the fur seal herd had been depleted to an alarming degree by pelagic sealing; that is, offshore sealing where a great many of the animals are lost, of course.

I think there have been some estimates, as many as one-third sink, and so are not recovered, with pelagic sealing.

By the way, there have been studies on this in subsequent years to indicate there is in fact a very substantial loss of females with young in them that are lost also.

The fur seal treaty not only provides for cooperative studies between the four member nations, the U.S.S.R., Japan, Canada, and the United States, but it also provides for land sealing, for harvesting the seals, the available surplus, on land. In this way, none are lost.

Of course, in addition to this, contrary to a good deal of information that I see in the press, the harvest is never of infants, of the pups. That does not occur with Pribilof fur seals, and to the best of my knowledge never has.

I have watched and observed the fur seal harvest for many years myself. They always take the young bachelors, 3- or 4-year-old bachelors that actually bunch up some distance from the herd itself and from the large rookeries, and these are driven inland a considerable distance away from the herd, and there they are killed and skinned.

There are surplus males because the animals are polygamous and one large bull fur seal has 10 or more females in its harem.

At any rate, without the protection of the fur seal convention it seems to me that nations such as Japan and Canada or the Soviet Union, or perhaps other nations for that matter, could not be prevented from pelagic sealing, and this would be a very destructive and damaging thing, indeed.

This morning there was some comment about the fur seal herd's having declined.

I confess not being absolutely up to date at the present time, but I know that in the mid-1960's the scientists of member countries had decided that the fur seal herd was too large and we deliberately reduced the herd, including deliberate killing of some females in order to bring the herd down to the level where it would produce the maximum yield of young, viable seals per year.

In my judgment, the fur seal population will fluctuate from year to year, but is under excellent management.

A great deal is known about it, and some of the very best marine scientists this country has ever produced have worked on fur seals.

Mr. PELLY. In the event of an absolute prohibition under international law, what might be the effect of overpopulation we will say of these herds and other marine mammals and the devastation that might be visited on other resources such as the salmon?

Mr. MCKERNAN. Well, in the first place I do not believe, and I do not accept the hypothesis that other nations would refrain from taking fur seals, particularly if the herd is in as good condition as the scientists say.

Therefore, I do not think that there would be a total ban even if the United States wanted it on fur seal hunting.

Assuming that there was, it seems to me that we have had quite a lot of experience with fur seals, and as I recall the papers of the past 15 or 20 years, what happens is we have a very high pup mortality, and many of the females are barren when the population gets too large.

Now the last information I had, this was not too well understood, but nevertheless it does occur, and by the way, it tends to occur in other animal populations where there is overcrowding, the fertility is decreased and mortality, particularly infant mortality, is increased.

That has been the case, and scientific information has shown that to be the case with fur seals, as well.

Mr. PELLY. My question had to do with the effect on the salmon.

Mr. MCKERNAN. I see.

Mr. PELLY. As you know, you fly over where the salmon are all getting together and about to go upstream and you see the seals in great abundance, at least I am not sure they are fur seals, but they are seals in Puget Sound, and off the Fraser River.

They certainly kill, and by just taking a bite out of a salmon destroys it, and I thought perhaps it would be detrimental to the salmon that is so important for food and the economy of the natives to balance these seal herds and to control them in a way so it is not too damaging to the fisheries.

Mr. MCKERNAN. I agree with you. I think the point that Mr. Talbot made this morning is a valid one.

One must try and provide some balance in nature, and if seals in particular and sea lions and some other mammals are not kept in some balance by appropriate reductions in their abundance, we may have problems.

In my judgment it is best to appropriately and conservatively manage the environment as a whole. In recent years, for example, the beluga, the small white whale that is circumpolar in occurrence has been in abundance. The natives, some of the natives in Alaska, no longer use these to the same degree they did in past decades, or the last century, and this whale has become a very serious predator on young sockeye salmon coming down from the streams in Bristol Bay in the spring of the year, and they take thousands of young salmon migrating to the sea from the fresh water.

So there is a predator problem, Mr. Pelly. I am not prepared to say that this is a terribly serious one, but it does indicate, in my judgment, the need to provide some kind of balance in the ecological system as mentioned by Mr. Talbot.

Studies on fur seals show that as salmon congregate and concentrate in the spring of the year, one of the major foods of fur seals at that time is the salmon.

Toothed whales and fur seals do feed on salmon but, of course, now that the population of fur seals is held in control, I think it is the view of the scientists that this predation on the important salmon stocks of Alaska and the Pacific Northwest by fur seals is not serious.

Mr. Pelly. Would it be possible for you, with the permission of the chairman, to submit for the record a list of the various marine mammals, with your comments as to any danger to fishery resources, if they were not controlled under some suggested plan such as a flexible plan which Dr. Talbot suggested this morning?

Mr. McKernan. I will be happy to cooperate with the committee.

(The information follows:)

MARINE MAMMALS CONTROL

Almost all marine mammals are carnivorous. Many species, notably various species of seals and whales, including porpoises and dolphins, are known to consume some quantities of fish used for food by humans. We know, for example, that fur seals eat salmon although the major part of their food appears to consist of other, less desirable species. Hair seals also take salmon, and beluga whales take, in addition to maturing salmon, some quantities of salmon smolts in Bristol Bay during the outward migration of the smolts. Baleen whales, of course, usually subsist on smaller organisms not generally sought by man but which are part of the food supply for fish higher in the food chain.

Unfortunately, to the best of my knowledge there is little evidence as to the physical quantities of useful fish that these mammals consume. As to controls over the populations, there are, of course, controls over fur seals and the larger, commercially exploited whales. The native population in Alaska takes walrus, some hair seals and a few of the smaller whales, like the beluga. Otherwise, the populations of these mammals, at least off the United States coast, are controlled mostly by the circumstances of their natural environment. In summary, it can only be said that marine mammals have some adverse effect on stocks of useful fish. The degree of this effect is not known, but it will obviously vary with the size of the populations of mammals.

Mr. Pelly. Thank you

Mr. Dingell. Mr. Anderson?

Mr. Anderson. Thank you, Mr. Chairman.

Has the State Department tried to negotiate any other treaty similar to the fur seal treaty of 1911 with respect to some of these other marine mammals like the walrus, the sea otter, and so on?

Mr. McKernan. This Government is in favor of negotiating both an international agreement on polar bear and one including walrus and other ice seals.

We have talked to other nations about this, and in particular with the Soviet Union.

The Soviet Union, of course, abuts Alaska, and there is every evidence that the ice seals, perhaps walrus as well, migrate between waters of the two, and of course this morning it was pointed out that probably polar bear do not recognize the boundaries that we humans do. So it will be necessary for us to resolve this by international means, and we are anxious to do so.

Now, we have had continuing, but I must admit, intermittent discussions with Soviet Union officials attempting to work out an international agreement on these animals.

I have talked with Soviet officials informally as recently as earlier this year, and I found them interested in such discussions, but somewhat reluctant to comit themselves to formal negotiations which would lead to an international agreement.

We are continuing to press such arrangements, and it is my judgment that we will arrive at a meeting of the minds, and will within a few years be able to get the circumpolar nations to agree to an international convention on these important marine animals.

Mr. Anderson. You say you talked to them as recently as this year.

How early have your talks been going on?

For example, in your remarks you refer to the fur seal treaty of 1911, and you say since that time the United States has negotiated a number of treaties, and have undertaken discussions.

It would appear since 1911 you have been moving in this direction.

Is it only recently that you have tried to develop an actual treaty?

Mr. McKernan. Mr. Anderson, in my statement I was really referring to some of our other fisheries teaties, such as the Northwest Atlantic Fisheries Convention, the North Pacific Fisheries Convention, and some of the other treaties.

In connection with polar bear and walrus, to the best of my knowledge, our serious discussions concerning an agreement on these animals began perhaps in the mid-1960's, although, Mr. Anderson, I could be wrong about that date.

My own close association was in the mid-1950's, and I do not recall any serious attempts earlier than that to get together with the Soviets and other polar nations to negotiate such an agreement.

We have in recent years tried to work toward this, and as was mentioned this morning, we have made some progress on polar bears.

We have made some progress in terms of the ice seals and walruses by agreeing to, exchange scientific publications as a first step.

In my judgment it is a small step, and not adequate.

(Committee Note.—On September 20, in hearings on other legislation pending before the committee, a representative of the State Department provided additional testimony on the subject of treaties for the protection of the polar bear. The exchange between Mr. Alanson G. Burt, Special Assistant to the Office of Fisheries and Wildlife in the Department of State, and the committee, was as follows:)

Mr. DINGELL. Now, I would like to discuss with you your comments here, and I think that they have been very helpful to the committee in relationship to the marine mammal legislation we are considering, and I very much think it would be valuable to discuss some of the points at this time from the standpoint of your very helpful statement

Can you, if you please, give us some comments on the three points that I have raised with regard to the endangered species referring particularly to the polar bear.

I believe you are the expert in the State Department on polar bears, and have been conducting negotiations with the Russians; have you not?

Mr. BURT. I am familiar with the subject; yes.

Mr. DINGELL. Perhaps in the light of this you might wish to give some comment to the committee with regard to the negotiations going forward with the Russians on this particular point.

Perhaps, particularly from the standpoint of your testimony on H.R. 3616 you might wish to comment.

Mr. BURT. Well, in that connection, Mr. Chairman, I would like to point out that under the terms of the present IUCN draft, the polar bears would be protected in what they call appendix II.

As I mentioned before, there are two categories of wildlife that would be protected under the terms of that draft treaty. The first category is the endangered species, a very clear cut category. The other category is the less-than-endangered-but-in trouble category. On that list, the IUCN has placed the polar bears along with some 65 other species.

We hope to invite the Soviet Union to the conference in Washington in April of 1972. My own view is that the Soviet Union will likely attend, as will Norway, Denmark, and Canada, the other states that have polar bear under their jurisdiction. At that time, I certainly hope that a full discussion will be given over to the subject of polar bears, in particular.

Mr. DINGELL. Mr. Potter, who worked with the committee, our counsel, would like to have some discussion with you on this point.

Mr. POTTER. Just a few questions, Mr. Burt.

In the testimony a week ago on the matter of polar bears there was some concern that we had not been able to get agreement with a number of other governments, specifically including the Russians, on arrangements for the protection of the polar bear.

We were given to understand that there were differences, they were not even close to being resolved. What, if you please, are the major differences between the various five nations involved as to appropriate regulations of the polar bear?

Mr. BURT. I think the difference rests in the fact that there is insufficient evidence to show what the status of the polar bear really is.

These five nations all belong to the polar bear research group, part of the IUCN, or under the auspices of the IUCN.

In that organization's latest communication to us they said that although research on polar bears is underway, it is by no means completed, and that although present evidence does not show that polar bears are endangered or not endangered, in the meantime it would be very nice if restrictions were placed upon the taking of polar bears, in the event it proves they are in trouble.

From the point of view of U.S. wildlife managers, based on my contact with them, this is an unsatisfactory state of affairs, they tend to think in terms of obtaining more facts, more evidence upon which to base their management decisions.

I think the reason there is a difference of opinion, in other words, is primarily because there is no clear cut evidence one way or the other.

Mr. POTTER. The suggestion was made (I thought and I would have to go back and check the record) that the Americans were the ones that had been pressing for more restrictive arrangements and the Russians have balked, which to me sounded odd, because the Russians had been trying to persuade us to adopt a ban on polar bear killing for at least 6 years. Are these differences still there, that is to say, are the Russians still pressing for a ban and the United States is still saying do not do anything until we have more information?

Mr. BURT. I believe it is not only the United States, but Canada as well shares our view. I am not certain of the opinion of Denmark and Norway in this.

Mr. POTTER. That is very helpful.

Another thing that came up with respect to this, and perhaps your information is more recent than mine, is that the Norwegians have recently imposed restrictions on the killing of polar bears, either by set guns or killing in the water, both of which they used to do.

Do you know what the status of polar bear hunting in Norway is?

Mr. BURT. No, sir; I do not.

I am aware that all governments of countries in which polar bears are found have imposed some restrictions on the taking of them, and this certainly includes the United States.

The taking of polar bears in the United States is regulated, of course.

I am not aware of the precise restrictions applied by Norway.

I do not believe there are a large number of polar bears on Norwegian territories.

Mr. POTTER. There may not be a large number taken in Norwegian territory, but for a number of years for which we have information, and I am referring now to the proceedings of the 1965 conference in Alaska, and the two IUCN conferences, one in 1968 and one in 1970, my impression is that the Norwegians, in most of the years covered killed more than any other country.

As I say, set guns were probably the primary method of taking by the Norwegians, and a number of sportsmen felt outraged by this as a technique.

Thank you, Mr. Chairman.

Mr. ANDERSON. Well, we have something similar in whales. We have the International Whaling Commission.

What role does State play in that?

Mr. McKERNAN. Well, the Department does essentially look after all of the international marine conservation conventions. We are a member of nine active commissions of which the Whaling Commission is one of these conventions.

We request financing for the operation of the Commissions, not for research usually, but for operations of the Commission.

We do work with the other interested Departments in formulating the U.S. positions where international relations are involved, and we have followed the activities of the Whaling Commission and the others as well for many years.

Mr. ANDERSON. Is the individual treaty, such as the fur seal treaty, a better vehicle than a whaling commission?

For example, in the report I have it says the Whaling Commission has not been too successful and then it identifies the fact that we have secured an agreement frm all the countries on some whales, but we are the only ones apparently recognizing the protection of certain whales.

Mr. McKernan. That is correct. The Whaling Commission has put in a total ban on hunting five very important species of whale that are badly depleted.

I must confess that I am very critical of the Whaling Commission, but I am not as critical as many people who have appeared before this committee.

I personally have followed the Whaling Commission for many years, and I have been disappointed almost every year in their actions, but I believe that the Whaling Commission has done a great deal of good, and continues to improve its record.

Today, the regulations of the Whaling Commission, while not perfect, provide reasonable control over the catch of most of the important species that are being taken commercially at the present time.

Now, before the Commission really became active and became more effective, the great blue whale—one of the great tragedies of the cenury, in my judgment—was very seriously depleted, and there is a question whether this whale will ever come back.

In terms of the sperm whale, these whales are in relatively good abundance, and there is active control, and active work going on to try and improve the current management.

Now, that was brought out by your chairman this morning and several other people.

The amount of research done on whales is deplorable. It is in no way commensurate with the importance of these great animals.

Most of the difficulties of the Whaling Commission have resulted from a lack of good information.

The nations, including the United States, have simply failed to put up the money to carry out adequate, very expensive studies on these species.

Japan and the Soviet Union, the two largest whaling nations, are most derelict in conducting adequate research.

In my judgment, the Soviet Union and Japan had a responsibility some years ago to put up a great deal more money than they did, since they were the major whaling nations, and to gather more information and they did not do it.

Be that as it may, we have done very little in studying the populations of whales ourselves.

Mr. Anderson. We have the fur seal treaty of 1911. We have the International Whaling Commission.

Do we have any other informal international agreements affecting marine mammals?

Mr. McKernan. No.

Mr. Anderson. Those are the only two?

Mr. McKernan. Yes. There is an Antarctic seal convention that is being considered at the present time and may be agreed upon within the near future.

There is the convention that I mentioned in my testimony dealing with the export, import and transit of certain species of certain wild animals and plants through the IUCN.

That will also regulate certain of the marine mammals. It recognizes and identifies them in the two appendices as being on the one hand endangered, and on the othed hand, low in abundance and in some danger.

Mr. **Anderson.** Currently we only have the two, the fur seal treaty and the Whaling Commission.

Mr. **McKernan.** My colleague, Mr. Blow, reminds me the International Convention for the Northwest Atlantic Fisheries also regulates as part of its responsibilities, the harp and hood seals, which are taken primarily by Norway and Canada, but to some extent by Denmark.

There is a panel of the Northwest Atlantic Commission dealing with these Northwest Atlantic seals.

By the way, these are the seals that we have heard so much about recently.

They kill the new-born pups during the white-coat phase. We do not take any of those seals.

Mr. **Anderson.** Thank you, Mr. Chairman.

Mr. **Dingell.** Mr. Kyros?

Mr. **Kyros.** Thank you, Mr. Chairman.

Ambassador McKernan, on page 3 of your testimony you say that there has already been prepared a basic working document for an international conference that is going to come about in April 1972 the International Union for the Conservation of Nature, et cetera.

What I would like to know is what, indeed, are the controls that are included in that document?

You say there is control over a number of species of marine mammals.

Very briefly, can you tell us what is in it?

Mr. **McKernan.** That convention would control the export, the import, and transit of certain species of wildlife and plants, and those wildlife and plants are identified in appendix 1 and appendix 2 of that draft convention.

Appendix 2 lists species not in danger of extinction but of which the export, import and transit must be subject to control to avoid undue exploitation.

Mr. **Kyros.** Then there will be a beginning of international control over those species?

Mr. **McKernan.** Yes.

Mr. **Kyros.** Is there any possibility of taking the Conference further?

Is that the way in which the Conference is going to proceed, or is it possible to rewrite that by next spring?

Mr. **McKernan.** It is possible, but not probable.

I say that, Mr. Kyros, because this has been through several phases in its development and we have been dealing with perhaps 40 other countries in drafting of this convention. We are calling the Conference in conjunction with the IUCN and it is pretty well along now.

Now, this does not mean it is impossible, you understand, but it would mean further delay, and it might be rather difficult in view of the large number of nations involved.

Mr. **Kyros.** Well, if the Congress acted on a bill which you apparently do not approve of, Mr. Pryor's bill, H.R. 6558——

Mr. **McKernan.** Mr. Anderson's bill.

Mr. **Kyros.** Congressman Pryor's bill, H.R. 6558, you most certainly would have to change your position on the agenda of the Conference; would you not?

Mr. McKernan. If that bill passed and was signed by the President, why then the United States would certainly have to reconsider its position at that particular conference.

Mr. Kyros. If the bill which you seem to approve passed, namely H.R. 10420, which calls for certain controls and might include periods of moratorium, would that not require you to change your position on the agenda for this Conference?

Mr. McKernan. Well, as I understand the bill, and particularly the amendments that have been suggested by the Department of Commerce, this would remain to be resolved; that is, there would be considerable flexibility as was brought out this morning, and in addition there would be the commission that would study the many aspects of marine mammal exploitation and conservation.

There is a possibility that the Government would want to change its position, but I do not believe that it would necessarily be mandatory that we do so.

Mr. Kyros. On page 6 you say, "to the best of our knowledge," that is the State Department I assume, scientific evidence is not available to support a blanket prohibition in the killing of all species of ocean mammals, or even all species of seals."

When you say "in your judgment," do you mean the judgment of Interior Department or of somebody else?

The State Department does not make an independent judgment on the killing of ocean mammals, does it?

Mr. McKernan. Well, no. I was calling upon the scientific evidence that is available, and from the scientists of the international commissions that we have been talking about here, scientists of the Fur Seal Commission, for example.

There is a good example where a point was raised this morning with regard to sea otters, and I think this is another example of a population where, at least as I understand it, in some areas the population is declining because of the declining food.

The sea otter overpopulated some of the islands of the Aleutians. I have personal knowledge of the scientific evidence available on these animals, and so this is a judgment on our part, based upon the best available scientific evidence.

Mr. Kyros. Well, I thought the testimony to date questioned the validity of the scientific data collected on the herd.

Mr. McKernan. It is true with certain species. No question about that.

What I said is that the scientific evidence does not support a blanket prohibition on the killing of ocean mammals, or some species of seals.

Mr. Kyros. In that case on what species should there be a ban?

Mr. McKernan. Well, I am not fully familiar perhaps with all of the species of seals or stock of seals around the world, but let me say that with respect to the monk seal of Hawaii I would certainly believe there should be a ban on killing those seals.

There is no particular purpose served in the killing of many of the harbor seals, small stocks of local harbor seals. On the other hand the Pribilof fur seals obviously can stand harvesting.

To the best of my knowledge the hood and harp seals of the Canadian Subarctic can stand a harvest, although by the way, there has been too great a harvest of these animals, but the scientists of the

Northwest Atlantic Fisheries Commission have indicated that they can certainly stand a harvest at the present levels of abundance.

It seems to me that where there are small localized stocks that have been under heavy exploitation, and are either seriously depleted or in danger of extinction, obviously a moratorium or a complete ban would be called for.

I might add, of course, we have called for a ban of a number of species of marine mammals through the Whaling Commission already. So there is no reluctance on the part of this Government to call for a ban where it is necessary.

Mr. KYROS. On July 26, before the House Foreign Affairs Committee, the State Department opposed a resolution passed unanimously by the Senate, calling for a 10-year moratorium on whales.

As a matter of fact, I think you called at that time for a vigorous role of leadership in the IWC.

You have just told us today that you have not yet been able to get the Soviets and Japanese and many other countries who deal with whales, together. Is that not the fact?

Mr. MCKERNAN. No. I think I may have been misunderstood.

I indicated that at least for some of the stocks I felt that the Whaling Commission regulations were pretty much in line with the sustainable yield. For other stocks, they certainly are not.

The Antarctic stock is a good example. I think the action of the Commission at the recent annual meeting that took place this past June was insufficient, and there should have been a greater reduction in the quota.

In the case of the North Pacific whales, I think that the Commission probably took quite responsible action, but if my earlier statements left you confused on the matter, I am happy to straighten that out.

Mr. KYROS. No; I think you made it perfectly clear.

In some instances, for example the whales, we have not been able to get the International Whaling Commission to agree. They have not fulfilled your optimistic hope that they would, in spite of the fact that the Senate proposed a 10-year moratorium on the killing of whales.

Mr. MCKERNAN. Right. As I think you will recall at that particular hearing, in our testimony we indicated that we felt giving the Secretary the authority to call for a moratorium was probably the best way to approach it, would probably give us the maximum amount of leverage and tools to deal with problems in the Whaling Commission.

Now, there has been a great deal of debate within the U.S. Government among very well meaning and very knowledgeable people about the Whaling Commission.

Some of us have thought we ought to get out of the Whaling Commission and forget about it.

Others have thought, and some very well-known conservationists have felt that we should stay within the Whaling Commission and try to work toward the conservation of these species since we have made substantial progress in the past 10 years, very substantial progress.

This year, we made a rather large step forward, providing for an international inspection scheme. But this is a matter of great concern, whether or not we are better off to quit the Commission, and call for a moratorium on whaling, for example, which, in my judgment, would not be effective.

The Soviets and Japanese will not stop whaling because the United States asks them to.

A better way to achieve conservation of the whale stocks is to do about what we have done. We have shown by our own example that we think whaling on all of these stocks is unwise at the present time, and we have gone before the Whaling Commission and we have asked them for substantial reductions in quota, and we got quite good support.

Now, we did not win all of our points, all of our positions this time, but we got commitments for further reductions in the quotas next year, and we did make substantial progress.

I think that this Nation's objective of bringing these whales under effective management is best served by us working with the Commission and perhaps, as at least suggested by Mr. Talbot this morning, eventually calling for renegotiations and perhaps a rewriting of the Whaling Convention.

Mr. Kyros. Everything you have just related is certainly commendable and there is no question about your patience and the craftmanship in getting these agreements.

Let me suggest this to you. The American people, through their elected Representatives, have put on record tough legislation effecting a moratorium and, I think that the other countries will listen.

A couple of years ago I met with Japan's Ambassador, a very fine gentleman. He seemed surprised that our Congress really intended to pass restrictive legislation on textiles. Now, we have a 10-percent surcharge on Japanese products.

What I am trying to suggest to you is that perhaps we enact legislation not to undercut what you are doing, but to put some muscle behind you.

Let me ask you this question. Has the Soviet Union ever expressed concern over the depletion of the Pribilof seals?

Mr. McKernan. Oh, yes. And they have been a very active member of the Fur Seal Commission. For years, for their own herd on the Commander Islands in the Western North Pacific, there was no sealing whatsoever. There was a complete ban.

Now, of course, there is a limited take, a take which is recommended to the Commission by the scientists of all four nations, and it is very rigidly restricted.

Mr. Kyros. Could the United States, with or without the consent of the other signatories, forego taking its share of the fur seals under the agreement without abrogating the treaty?

Mr. McKernan. Taking our share?

Mr. Kyros. Forego taking our share of the Alaskan fur seal without abrogating the treaty. Could we do that?

Mr. McKernan. Let me make sure I understand.

It would be your suggestion now that we take enough to give the appropriate share to Canada and Japan, and simply not take our own; is that what you are suggesting?

Mr. Kyros. Canada and Japan get 15 percent of the total. I am suggesting that we forego killing our share, let the other countries kill their share, and give up 15 percent.

Mr. McKernan. When they kill their share, they will do this pelagically. All the fur seals at the present time are killed on land, either in the Pribilofs by our native islanders or in the Commander Islands of the Soviets, so, if we were to follow your suggestion, you would do this two ways. Either let the Japanese and Canadians seal pelagically which, incidentally, I would be against, or we allow our natives to take the 30 percent on the islands at the present time.

That raises another question. Since the scientists of all four countries would not agree that you could not harvest more, there is a question whether Canada or Japan would refrain from pelagic sealing to take the remainder of the allowable harvest. And I cannot answer that. I do not know.

Mr. KYROS. What about the possibility of banning or imposing a quota, on the import of seal pelts into the United States? That has been discussed frequently.

Do you think that would have an impact on the seal killing?

Mr. MCKERNAN. It would have slight effect, because most of the seal skins are sold in Europe.

Mr. KYROS. So, that is not a workable suggestion. The seal skins are sold in Europe, and are sewn into coats with the labor they have over there and then the garments are brought back into the United States.

What about a ban on the import of those coats?

Mr. MCKERNAN. I think most of the coats are sold in Europe. My own personal judgment is it would not have the desired effect you seek.

Mr. KYROS. I have never had so much mail received in my office as on this issue. It would seem to me that State Department is going far beyond what you are suggesting here as to what methods you are going to take with foreign nations, whether it concerns ocean dumping or air pollution.

Mr. MCKERNAN. Well, Mr. Kyros, I would disagree with you that we are simply sitting on our hands and not doing anything.

We have a great many successes in the marine field. Most of our International Fishery Commissions are quite successful.

It is true, in the last 5 years or so, or even 10 years, that we have had a tremendous influx of foreign fleets off our coasts.

We have not solved all of these problems, but, here again, the United States is very actively seeking a new Law of the Sea Convention.

There will be a LOS conference very likely in 1973. I spent a good deal of time in Geneva this year at a preparatory conference. And, at this time, the United States has proposed and has shown what I think is a great deal of leadership in providing for additional protection for our coastal fishermen, the kind, by the way, that would solve the problems in Maine, Massachusetts, and the New England coast in general.

Mr. KYROS. The haddock problem?

Mr. MCKERNAN. On haddock, as well as other species. That is, the proposals would provide the kind of protection that would take the pressures of foreign fishermen off these stocks of fish.

We have had great success in tuna and great success in the rehabilitation of salmon on the west coast and in the State of Alaska.

We have had good cooperation from other nations who are fishing there and who would like to fish so they can export to our markets.

I do not think, while there has been a great deal said about a certain lack of progress on some of these difficult areas, that one can say that we have not made considerable progress in settling our marine conservation problems.

Mr. KYROS. I did not say that. What I said is that we in the Congress should not be fainthearted in dealing with the foreign nations on marine mammal protection, because we have taken other attitudes in the past.

I think that once we show other nations what we think the path should be, they would be willing to join in.

It would appear to me that the best thing that could happen to you is having Congress enact a strong bill that will give you a lot of muscle so that you will have the necessary authority to negotiate.

Mr. PELLY. Mr. Kyros, will you yield?

Mr. KYROS. I yield.

Mr. PELLY. I had in mind, when you said we should pass a strong bill, to indicate to these foreign countries that we meant business in connection with the North Atlantic salmon.

I am hopeful that we will pass a bill and encourage Denmark to come into the community of nations and practice conservation.

I agree with you.

Mr. KYROS. I can see salmon back in the Penobscot River some day.

Mr. PELLY. I was over in Scotland during the recess, and they had the lowest catch of salmon in history. And, obviously, it is due to the fact of the indiscriminate taking of the North Atlantic salmon off of Greenland.

Mr. MCKERNAN. It has been very slow in Canada, also, and it is a very serious matter.

Mr. PELLY. It indicates that the agreement to hold the catch at its previous level is too high, and some more restrictive measures must be taken.

Mr. KYROS. Thank you, Mr. Chairman.

Mr. DINGELL. Mr. Anderson?

Mr. ANDERSON. Thank you, Mr. Chairman.

I would like to clarify my own understanding of the Fur Seal Treaty. My understanding is that of the seals that we harvest on our side, the 50,000 fur seals each summer, we get 70 percent of those, and 15 percent each go to Japan and Canada.

Now, Russia does the same thing. Is Russia's annual take also 50,000?

Mr. MCKERNAN. No. Their take is much smaller than that, and is more on the order of, I think, about 16,000 from the Soviet rookeries because the herd is much smaller. In fact, it had practically disappeared in earlier years and has recently come back.

Mr. ANDERSON. And 30 percent of that take also goes to Japan and Canada, so they get 30 percent of the take, regardless of where it is taken?

Mr. MCKERNAN. That is correct.

Mr. ANDERSON. Now, we get a large share. Is that part of the operation?

Mr. MCKERNAN. Yes; generally so. I cannot give you the economics of that at the present time. This is under the direction of the Department of Commerce and their National Marine Fisheries Service, and I am sure they can give you the exact figures.

I think, generally, the answer to your question is yes, but I cannot tell you precisely.

Mr. ANDERSON. Where is the Russian base?

Mr. MCKERNAN. The Commander Islands, an extension of the Aleutian Islands over onto the Soviet side of the North Pacific Ocean.

Mr. ANDERSON. Thank you, Mr. Chairman.

Mr. DINGELL. Mr. Potter?

Mr. POTTER. Mr. McKernan, at the 1972 conference on polar bears, the delegates at that conference were instructed to return to their governments and to urge measures for greater protection of the polar bears.

Have they communicated their concern to the Department of State, and what is the Department of State doing?

Mr. MCKERNAN. You must mean 1970. You said 1972.

Mr. POTTER. I am ahead of myself then.

Mr. MCKERNAN. Well, we have contacted the Soviet Union further in relation to attempting to get together with them and negotiate an international convention on polar bears.

The Soviet Union has, once again, been somewhat reluctant for reasons unknown to me, but in recent months they have indicated that they are willing to meet on all of these particular species, and I am anxious to get together and to try and resolve this issue.

Of course, you are perhaps more familiar than I am with many results of the scientists and technicians.

Since this activity, the State of Alaska has gone on and has instituted a number of conservation measures as well.

Mr. POTTER. I do not want to get into what Alaska has done. I am talking now what the State Department has done or not done.

Mr. MCKERNAN. The only responsibility the Department of State has is to try to bring together the principals to negotiate an international convention.

Mr. POTTER. I do not think that would be too difficult.

What is your problem with the Russians? They have been urging us for 6 years to impose a ban on the killing of polar bears.

Mr. MCKERNAN. That is right, and it has been our view that we ought to get together and negotiate an international convention on the subject, and get to study the animal and put appropriate management measures into effect.

Mr. PELLY. May I interrupt at this time? Is the polar bear migratory?

Mr. MCKERNAN. It apparently is. I am not an expert on polar bears and do not claim to be. It is my understanding that there is some possibility that there are different stocks of polar bears.

Mr. PELLY. Then, under a treaty, if we wish to do so, you could sign a treaty that would be binding on Alaska and Canada.

Mr. MCKERNAN. And other nations as well; yes.

Mr. PELLY. Just like migratory birds?

Mr. MCKERNAN. Yes. In recent years, there has been, as was pointed out this morning, a great deal more activity in terms of study and research on polar bears by the Federal Government, as well as the State of Alaska.

Mr. POTTER. Now, in December of last year, the Commerce Department and the Interior Department declared, in effect, that as of December of this year, no more whales or whale products, from any of the species currently commercially taken, could be imported into the United States.

Mr. MCKERNAN. The Department of Interior did that under the Endangered Species Act; yes.

Mr. Potter. I thought Commerce was involved in this.

Mr. McKernan. Again, I am not the person to ask, but I can say that Commerce provides permits for commercial companies to operate whaling stations, and they did give permits for commercial whaling, as I understand it, through the year 1971. But, on the basis of the Endangered Species Act, action by the Department of Interior and by the Government, they indicated that after 1971 they would no longer give any permits for commercial whaling by U.S. companies.

Mr. Potter. That was as of last December.

I have here a document entitled, "A Report of a Meeting of Representatives of the North Pacific Whaling Nations," and attached to that is an annex of agreement on the regulation of North Pacific whaling, executed by representatives of Japan, Russia, and the United States, indicating that the total catch of the baleen and sperm whales (all of which are on this endangered species list) authorized to be taken shall be allocated in 1972 in the following manner, and it gives a list.

The United States is entitled, according to this list, to take 132 whales. How is that consistent with our statement that as of this December we are not going to take any whales?

Mr. McKernan. Well, the United States, has, of course, been whaling in the past. And the action by the Department of Interior is an administrative action; and while I was not responsible for this document and this action, although I have seen it as you have, my presumption is that Dr. McHugh, The Commissioner for the United States, felt that the United States, at least, ought to keep its general quota. But this did not mean, of course, that the United States would choose to take that quota.

There is another element in this, and that is that if the United States kept its quota, at least that particular number of whales in the total quota would not be available for somebody else to take.

It probably is a desirable thing if, in fact, we want to work toward a reduction in the take.

Mr. Potter. I think that is the most compelling argument for the dog-in-the-manger theory I have ever heard.

Is this not essentially what you are saying, even though technically we are not permitted by regulation of the Interior Department——

Mr. McKernan. And only by administrative regulation which can change like the wind, of course.

Mr. Potter. That is very interesting. I had understood that the Interior Department had stated that this was being done under the Endangered Species Act, which permits a 1-year moratorium from the enforcement of the Endangered Species Act in the cases of hardship. Presumably, the Del Monte in Richmond, Calif., pleaded, and managed to get a hardship extension.

What you are saying now is that Interior, if it wanted to, can come out any minute and say, "OK, you can have a further extension."

Mr. McKernan. Well, let me go back again.

In terms of the Endangered Species Act, of course, this is under the authority of the Department of the Interior. In terms of the permit for commercial operation, they are issued by the Department of Commerce.

Mr. Potter. I do not see that that answers my question.

Mr. McKernan. Well, your question dealt with the commercial exploitation by the United States.

The Department of Commerce will issue such a permit if one were issued. That is my understanding. There is no problem there.

They do not intend to issue it so far as I know, and there is no thought that the United States is going to use this particular quota.

By the same token, I would point out that the United States, if it wanted to, could take these species off the endangered species list, and in such case, the Department of Commerce could administratively provide for permits for that whaling station, or some other.

That, of course, does not imply under any circumstances that either the Department of the Interior intends to do that or that there is any suggestion that it will do that, nor is there any suggestion that the Department of Commerce will issue such a license.

Mr. Potter. The workings of the International Whaling Commission are beyond me.

Have any steps been taken under the North Atlantic Convention for the North Atlantic fisheries for the further regulation of the harp seal by Canada?

Mr. McKernan. Yes. Harp and hood seals.

Mr. Potter. Will you supply that for the record?

Mr. McKernan. I think I can tell you right now.

At this last meeting, there was a disagreement between the sealing nations, and there is to be a special meeting of the three nations later this year. So, at the present time, I cannot give you the numbers to be harvested during the next season because there will be a special meeting dealing with this particular problem this fall or winter.

Mr. Dingell. Mr. McKernan, will you describe to the committee, if you please, the size, composition, budget, and function of the International Whaling Commission, how many people they have, what the staff is?

Mr. McKernan. There is a part-time secretary who arranges for the meetings.

Mr. Dingell. What does that part-time secretary do, if you please? Is it a typist, or what?

Mr. McKernan. No. It is a professional, a man who retired from the Department of Interior—I beg your pardon. You asked what now?

Mr. Dingell. What is the composition?

Mr. McKernan. In the case of the Whaling Commission, there is a retired British civil servant, who is a part-time secretary, and he has secretarial help.

Now, they collect and bring together the statistics of the Whaling Commission and make them available.

The research and analysis is done by committees composed of scientists and technical people from the member nations so that the staff of the Whaling Commission itself is very small, it really arranges for the meetings and reports and sees that the reports are published each year.

Mr. Dingell. That is all?

Mr. McKernan. That is all.

Mr. Dingell. What is the cash budget for this agency?

Mr. McKernan. Our contribution, as I remember, is about $1,000. That has been so for many years.

Mr. Dingell. One thousand?

Mr. McKernan. That is right.

Mr. Dingell. What is the total budget?

Mr. McKernan. About $14,000, total.

Mr. Dingell. What are the contributions? Can you submit to us the contributions of each of the other nations?

Mr. McKernan. It is the same.

Mr. Dingell. That is the total budget?

Mr. McKernan. That is the total, really, of the administrative budget of the Commission.

Now, any research work that goes on is carried on by the whaling nations themselves.

Mr. Dingell. What does the Commission do?

Mr. McKernan. Well, the Commission itself, under its terms of reference, arranges for meetings and arranges for a discussion of the conservation regulations, and publishes the catch of whales in some detail.

For example, in recent years, it has had a blue ribbon task force of biometricians, one of whom is a scientist from the United States, Dr. D. Chapman, a mathematician from the University of Washington.

These people have analyzed the data, the catch data, and other relevant scientific data that has been collected and provided by member states to the Commission for many years, and they have estimated the populations, the growth and death and recruitment of the whale stocks, and have estimated the maximum sustainable yield of the stocks.

Mr. Dingell. Have the recommendations been accepted?

Mr. McKernan. Not entirely.

Mr. Dingell. Not entirely, or not at all?

Mr. McKernan. To some extent. It is impossible to say yes or no, Mr. Chairman, because there has been some disagreement among the scientists. And with this disagreement, there have been essentially compromises within the Commission.

Mr. Dingell. Somebody compromised the blue whale to death, as I see it.

Mr. McKernan. That is true. There is no question about that.

There was a very serious neglect of conservation in the case of the blue whale, very serious.

Mr. Dingell. I sent a letter to Secretary Rogers on September 3, requesting information on the policy aspects of the International Whaling Commission, and so forth.

I requested information, for example, on what efforts have been made by or through the State Department to develop international arrangements for the protection of (a) walruses, (b) seals, sea lions and sea elephants, other than the Alaska fur seal, (c) polar bears, and (d) sea otters.

I asked what discussions had been held in conjunction with the planning of the 1972 Stockholm Conference as to the environmental implications, or lack thereof, associated with the protection of marine mammals.

I further asked what efforts have been made by or through the State Department to change, and specifically to strengthen, the authorities of the International Whaling Commission.

What information has been developed by your department regarding the killing of marine mammals in international waters by nations which are not parties to the existing international agreements.

I have not yet received a reply from Secretary Rogers.

Are you aware of this letter, Mr. McKernan?

Mr. McKERNAN. Yes, I am. It has recently come to me, and we are in the process at the present time of providing the answers as best we can to the questions you have raised.

Mr. DINGELL. Then I will ask unanimous consent that my letter to the Secretary, and the response, when it arrives—and I assume you will move expeditiously—will be inserted in the record at this particular point. And without objection, it is so ordered.

(The letter referred to follows:)

AUGUST 17, 1971.

Hon. CHRISTIAN HERTER,
Special Assistant to the Secretary for Environmental Affairs, Department of State, Washington, D.C.

DEAR MR. SECRETARY: While I am not quite certain as to the assignments of responsibility within your Department, I am reasonably sure that you will have already familiarized yourself with the problems involved with the protection of whales, seals and other ocean mammals.

I understand that there has been considerable discussion already on the possibility of including the question of ocean mammal protection in the agenda for the 1972 conference.

You will, therefore, be interested in knowing that my Subcommittee has scheduled hearings on several bills on the subject of marine mammal protection, chiefly H.R. 6558 and H.R. 10420, beginning Thursday, September 9, 1971. Copies of these bills have already been sent to the Department of State through official channels, but I wanted to bring these to your specific attention and to ask that you let us have your views on this question, officially or unofficially, as you wish.

The disappearance or low population levels of certain species of marine mammals would clearly have implications for the ecosystems of which these mammals have been a significant part. Also, the level of pollution of the world's oceans will unquestionably have some effect upon them which might well be to increase the environmental stress limiting their growth and survival rates.

We will be most interested in your reaction to these bills.

With every good wish.

Sincerely,

JOHN D. DINGELL,
Subcommittee on Fisheries and Wildlife Conservation.

DEPARTMENT OF STATE,
Washington, D.C.

Hon. JOHN D. DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your letter of August 17 requesting Mr. Christian A. Herter's views on the problems involved with the protection of marine mammals and the several bills on the subject of marine mammal protection scheduled for hearings before your committee on September 9th.

The Department considers that the policy of the United States should provide for the conservation and protection of marine mammals in order to maintain their population at optimum levels and to ensure that no species is threatened with extinction. We are therefore in sympathy with efforts by Congress to conserve and protect marine mammals.

The Department has prepared draft reports on H.R. 6558 and H.R. 10420. The official reports will be forwarded upon completion of the necessary review.

We are of course concerned about the effects of the deterioration of the ocean environment on all marine ecosystems and expect to participate fully in the discussion of this subject at the United Nations Conference on the Environment at Stockholm in 1972.

In addition, we look to the world conference on the protection of wildlife which will be convened in Washington in the Spring of 1972 to conclude a convention on this subject.

As you stated in your letter, the disappearance or serious reduction in the population levels of marine mammals can affect the stability and viability of marine ecosystems which in turn can lead to a more generalized disruption of the marine environmental balance. If we are to preserve the oceans, and if their resources are to be preserved for mankind, programs must be developed that view the oceans and their flora and fauna as a totality, recognizing that the extinction of one species can threaten all others.

Sincerely,

HARRISON M. SYMMES,
Acting Assistant Secretary
for Congressional Relations.

SEPTEMBER 3, 1971.

Hon. WILLIAM P. ROGERS,
Department of State,
Washington, D.C.

DEAR MR. SECRETARY: As I believe you have already been informed, my Subcommittee will begin hearings on September 9 on several bills dealing with the protection of marine mammals. While government witnesses will not be heard on that date, we will hear from them at a later date, and expect that the Department of State will provide us with a representative at that time.

Because hese questions will involve matters of significant United States policy, we expect your Department to provide a spokesman at the level of Assistant Secretary or higher i.e., one who is in a position to discuss policy matters at the hearings. Presumably, Ambassador McKernan will be present to answer questions of a technical nature, but I would hope that Mr. Herter, or a representative of his office, will also be available to respond to questions on the environmental implications of these bills.

Additionally, we have some specific questions with regard to matters falling within the scope of these bills, as to which we would appreciate your assistance. Specifically, we would like to know:

1. What efforts have been made by or through the State Department to develop international arrangements for the protection of (a) walruses, (b) seals, sea lions and sea elephants (other than the Alaska fur seal), (c) polar bears, and (d) sea otters?

2. What discussions have been held in conjunction with the planning of the 1972 Stockholm Conference as to the environmental implications (or lack thereof) associated with the protection of marine mammals?

3. What efforts have been made by or through the State Department to change, and specifically to strengthen, the authorities of the International Whaling Commission?

4. Finally, with regard to the activities of the IWC, I have some specific requests for information. It would be appreciated if you would supply us with

(a) all recommendations to the IWC by its scientific advisors for each of the past fifteen years with regard to:

(i) the number of whales which may be taken, by species and population stocks, if any;

(ii) species and population stocks which should *not* be taken;

(iii) areas in which whaling should not take place; and

(iv) other suggested restrictions upon whaling activities by member nations.

(b) all recommendations by the U.S. delegation with regard to the same questions, for the same period.

(c) all recommendations by the U.S. delegation on any other matter before the IWC.

(d) the responses of the IWC with regard to each of the foregoing recommendations.

(e) the activities of any member nation which may be inconsistent with any of the foregoing recommendations, or with positions taken by the IWC.

5. What information has been developed by your Department regarding the killing of marine mammals in international waters by nations which are not parties to the existing international agreements?

Your assistance in this matter will be appreciated.

Sincerely,

JOHN D. DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation.

DEPARTMENT OF STATE
Washington, D.C., September 20, 1971.

Hon. JOHN D. DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: The Secretary has asked me to reply to your letter of September 3 regarding the hearings by your Subcommittee on several bills dealing with the protection of marine mammals.

Your letter posed several questions with respect to the activities of the Department and the International Whaling Commission regarding marine mammals. Responses to these questions appear below in the same order as they appear in your letter.

1. Efforts toward international arrangements for protection of various marine mammals

As a matter of general interest under this item, the draft of a wildlife conservation treaty which has been prepared by the International Union for the Conservation of Nature and Natural Resources (IUCN) as a working document for the conference to be convened at Washington in April, 1972, would protect all *sirenia* (listed on Appendix I of the draft) and polar bears, sea otters, Guadelupe fur seals and walruses (listed on Appendix II).

Walruses.—At the time of the meeting of the North Pacific Fur Seal Commission in Ottawa in 1970, representatives of the United States and the Soviet Union, with Japanese and Canadian observers present, discussed the conservation of walruses and ice seals and agreed to exchange information on these animals, including population figures, kill statistics and published scientific and technical papers. Agreement was also reached on holding annual discussions on ice seals and walruses in conjunction with future annual Fur Seal Commission meetings. These discussions are aimed at determining whether more formal arrangement, including an international agreement, as appropriate, are required in order to ensure the conservation of the animals.

Seals, sea lions and sea elephants.—In addition to the above mention of ice-dwelling seals, the International Convention for the Northwest Atlantic Fisheries, to which the United States is a party, provides for the investigation, protection and conservation of harp and hood seals in the Convention area. These seals are taken off the eastern shores of Canada, and United States nationals do not participate in the hunt. In addition, a draft Antartic sealing convention has been prepared by the Antartic Treaty states, including the United States, and will be negotiated at a meeting expected to be called by the Government of the United Kingdom next spring. It would prohibit pelagic sealing south of 60 degrees south latitude, protecting six species—crabeater seals, leopard seals, Weddell seals, Ross seals, elephant seal and fur seals of the genus *Arctocephalus.*

Polar bears.—The first International Scientific Meeting on Polar Bears was held at Fairbanks, Alaska in 1965. A Polar Bear Group of Research Specialists was established (under the IUCN); this Group meets from time to time to discuss research activities. The latest meeting was in February, 1970. The United States, Canada, Denmark, Norway and the Soviet Union are represented in the Group. As noted above, polar bears are on Appendix II of the IUCN draft.

Sea otters.—This species is considered to be a resident species and is either protected or regulated by all states of the United States in which found. As noted above, sea otters are on Appendix II of the IUCN draft.

2. Discussions in conjunction with planning for the 1972 Stockholm Conference.

There have been as yet no intergovernmental discussions specifically on this subject. However, the subject of "the Environmental Aspects of Natural Resources Management" constitutes one of the four major topical areas around which the United Nations Conference on the Human Environment is being organized. Discussion of this subject at the Conference will focus upon the means for incorporating environmental considerations into the comprehensive planning and management of natural resources, including in this context living as well as non-living resources. We expect that the status of marine mammals and their role in the marine ecosystem will be discussed by the Conference, and the United States plans to participate fully in these discussions.

In addition to the discussion of the conservation and management of resources, the Conference may take action to protect endangered species. We are considering the desirability of opening the wildlife conservation treaty for signature at the Stockholm Conference by those states which did not sign following the negotiations in Washington in April, 1972.

3. Efforts to strengthen the authority of the International Whaling Commission.

The authority of the Whaling Commission derives, of course from the International Convention for the Regulation of Whaling, 1946. The only changes which have been made in the Convention are those provided by the Protocol of 1956, which entered into force in 1959. The Protocol made two changes, one adding helicopters and other aircraft to the definition of "whale catcher" and the other adding "methods of inspection" to the areas in which the Commission might regulate. The latter provision was intended, among other things, to enable the Commission to establish a system of international observation of enforcement, as had been proposed by Norway in 1955 with respect to factory ships in the Antarctic.

The Convention itself is not greatly dissimilar to other international agreements for the conservation of living marine resources, although it does place more emphasis on the interests and well-being of the industry and consumers of products than is generally the case. This emphasis derives from the fact that at the time of the negotiation of the treaty there was considerable concern over the world shortage of fats and oils and other foods and over the condition of the whaling industry. Perhaps the greatest difficulty with the operation of the Convention has stemmed from the provisions permitting any of the Contracting Parties to object to a recommendation of the Commission within a specified time. The use of this right to object, or the obvious intent to use it, has at times prevented the adoption of desirable conservation measures and the substitution of compromises not adequate for the purpose at hand. This follows from the fact that most members consider some controls, even though inadequate, as better than none at all, and the lodging of an objection to a recommendation, for example, on the Antarctic quota would have created a situation in which no quota was in effect. It is easily understood that, in the highly competitive circumstances of the whaling industry, if one Government were to exempt itself from the application of a proposed regulation, other Governments concerned would immediately follow suit in order not to be placed at a disadvantage.

However, the same type of provision is present in practically all other marine conservation agreements, since governments have not been prepared to surrender their sovereign rights to an international conservation commission and to accept automatically whatever recommendations such a body might make. While such provisions have not caused nearly so much difficulty in other conservation commissions, the impact of one regulation or another may be much more serious in the case of the whaling industry where such large units of capital (as regards the pelagic fleets) are involved and where there is such a high degree of competition. So far as the operations of the Whaling Commission are concerned, therefore, it becomes a matter of persuading all member governments whose nationals might be affected by a particular regulation that the proposed course of action is required in the light of the scientific evidence available and is in the best long-term interests of all.

The efforts of the United States toward strengthening the authority of the Commission have accordingly been directed toward building up a scientific case which would, to the extent possible, provide inescapable conclusions as to actions which the Commission should take. In this effort the United States has taken or supported several initiatives designed to persuade the Commission to face up to its conservation responsibilities. For example, after some years of disagreement among the Commission's scientific advisers as to the status of baleen whale stocks in the Antarctic, the Commission decided in 1960 to establish a special committee of three (later four) scientists expert in population dynamics and drawn from countries not engaged in Antarctic pelagic whaling to examine the status of the Antarctic stocks and to report on their condition, on the level of sustainable yield, and on conservation measures that would increase the sustantinable yield. The United States took a leading part in the decision to establish this committee. In taking this action, the Commission declared its intention that the Antarctic catch limit should be brought into line with the scientific findings not later than July 1964. Following the failure of the Commission to honor this commitment the United States and others brought about a special meeting in May of 1965, at which it was agreed that the Antarctic quota would be progressively reduced so that the figure for 1967/68 would be less than the combined sustainable yield of the fin and sei whale stocks—which by then were the only baleen whale species permitted to be taken in that area.

The United States has also taken a leading role in establishment of measures for conservation of the North Pacific whale stocks, to which increasing effort had been devoted following the decline of whaling in the Antarctic. Initial discussion and action with respect to North Pacific whales were confined to representatives of the four countries—the United States, Canada, Japan and U.S.S.R.—primarily concerned. The United States representative has acted as chairman of this North Pacific group since its inception. Through these efforts catch quotas have been established in the North Pacific, beginning with voluntary arrangements between these four countries in 1968 covering the 1969 season. These quotas were reduced for the following season and the Commission itself adopted regulations providing quotas, reduced in each case, for the 1971 and 1972 seasons.

4. Specific information on activities of the International Whaling Commission.

With regard to the various items of information requested concerning the Commission's activities and United States proposals, we have reviewed the documentation and have concluded that a complete and detailed response would require extensive research going far beyond the time when such information would be needed by you. Taking this into account and after consultation with a member of your Committee staff, we suggest that the provision of certain Commission reports and documents might serve the purpose. Accordingly, we enclose a copy of the Chairman's report to the Commission for each of the annual meetings during the period 1956 through 1969. (The reports of the 1970 and 1971 meetings are not yet available and substitute materials have been provided.) These reports provide a rather detailed summary of Commission activities and of Commission actions at the annual meeting, including recommendations of the Scientific Committee which were available for consideration. In addition, there are enclosed for each of the annual meetings beginning with 1966, a copy of the report of the Commission's Technical Committee, of the Scientific Committee and of the Commissioners from the North Pacific member nations. The Technical Committee is a kind of committee of the whole which considers in the first instance the information available and formulates proposals for reference to the main body, and its report will, therefore, provide additional detail as to the nature of the alternatives available for action and as to the nature of the alternatives available for action and as to the positions of the various members. As of possible interest, there is also enclosed a copy of a Commission report in connection with the 1956 annual meeting which summarizes the origins, objectives and provisions of the Whaling Convention.

5. Information on the killing of marine mammals by nations not parties to existing agreements

Whaling operations take place under the jurisdiction of five governments which are not parties to the Whaling Convention. These are Chile, Peru, Brazil, Spain and Portugal. Chile and Peru signed the Convention but did not ratify; Brazil was formerly a party but withdrew in 1966; Spain and Portugal were not signatories. These countries regularly report their catches to the International Bureau for Whaling Statistics at Sandefjord, Norway, which acts as a data-gathering center for the Commission through the courtesy of the Norwegian Government. For example, in the 1970 season the catches by these countries were as follows:

Chile—103 sei whales.
Peru—85 fin whales; 414 sei whales; 1,436 sperm whales.
Brazil—26 sei whales; 76 sperm whales; 701 minke whales.
Spain—261 sperm whales; 152 unspecified baleen whales.
Portugal—205 sperm whales (Azores); 44 sperm whales (Madeira).

These figures compare with world totals for the 1969/70 Antarctic season and the 1970 season elsewhere of 5,057 fin whales, 11,195 sei whales and 25,842 sperm whales.

We cannot confirm that all regulations of the Commission pertaining to prohibited species, size limits and the like are observed by the whalers of these countries. However, we understand that the regulations are generally observed.

The Department is also aware of reports that two "pirate" whaling vessels have been operating off the west coast of Africa in the past year. These are understood to be relatively small operations, involving in each case a combination of catcher vessel and processing vessel. They are understood to be flying flags of convenience. The members of the Whaling Commission which are most directly concerned with these operations have undertaken to seek such measures as may be possible to control them, and upon development of further information the Department will consider courses of action which it may take in this respect.

With respect to other species of marine mammals covered by international agreements, the Department is not aware, nor has it any reason to believe, that such animals are being killed by nations not parties to the existing agreements.

I hope that the foregoing information will be useful to you in your consideration of the various bills on protection of marine mammals. If there is any further information we can provide please let me know.

Sincerely,

David M. Abshire,
Assistant Secretary for
Congressional Relations.

Mr. Dingell. It is your view that the International Whaling Commission has done an adequate job of protecting the whales?

Mr. McKernan. No.

Mr. Dingell. Well, what are we going to do about it?

Mr. McKernan. Well, we are doing something about it, and I think, in the past 10 years, substantial progress has been made to bring the controls on whaling within the allowable, sustainable yield limits.

Mr. Dingell. Are you telling me last year's catch was within the allowable sustainable yield limits?

Mr. McKernan. On some species, the answer is "Yes." It is within the limits of the knowledge of the stocks of whales of some of these species, for example, the North Pacific sperm whales; still, generally, the performance is not completely adequate from my point of view, and I am sure from yours, Mr. Chairman.

Mr. Dingell. It is very definitely not adequate from my view, and that is one of the reasons we are having these hearings.

Mr. McKernan. We had three major objectives. The United States had three major objectives at this recent Whaling Commission meeting.

By the way, these objectives were drafted, not necessarily or not even to any major degree, by the Department of State, but by all interested departments of Government.

These were, first to attempt to bring down the catch below the sustainable yield level.

Second, do away with the blue whale unit.

You know, Mr. Chairman, for years in the Antarctic the whales have been listed, the catch has been listed, and the quotas have been taken on the basis of blue whale units rather than by species.

We felt for a long time this was a very bad practice, and we wanted to eliminate that.

Third, we wanted to have initiated an effective enforcement scheme, international enforcement scheme.

Now, we did not completely succeed in the first objective. There was a general reduction of about 20 percent, as I recall in the quotas for this year from last year.

In terms of the blue whale unit, the Commission turned down a change for procedural reasons, but agreed that it would go into effect next year.

Now, this is a very major advance. It is years late, but there are some problems in terms of a practical change as significant as that, and so there will be next year a change from the blue whale unit to a species unit of catch of whales taken from the Antarctic. We will have then a control and a quota on these species themselves rather than grouping them all under the general blue whale unit category.

Then, it was agreed, and I think this is a major step, to institute an effective inspection system where, for example, Japanese would be on Soviet ships and Soviets would be on Japanese ships.

That particular agreement is now being consummated in Tokyo at the present time.

Mr. Dingell. What about American inspectors on Soviet ships and Japanese landing ports?

Mr. McKernan. That is under consideration at the present time.

The question is with the United States not having any whaling or affording any reciprosity, in other words we will not have any whaling stations open, whether we ought to provide inspectors for the whaling countries.

Mr. Dingell. That would tend to make us honest men. We have no commitments not to resume whaling.

We simply are not doing it at this time because the whales have been jeopardized.

Why should we be denied the opportunity of inspection?

Mr. McKernan. That possibility is not eliminated, but I am sure the whaling nations would want reciprocity, and will want to inspect those nations who are inspecting them.

Anyway, in terms of effective enforcement, this is a very major step forward, in my judgment.

Mr. Dingell. Now, is it your view that the nations are respecting catch limitations?

Mr. McKernan. Generally.

Mr. Dingell. Generally?

Mr. McKernan. Yes; I am not positive about it.

Mr. Dingell. I have heard it said that they are not respecting catch limits as to the number of whales or the species or the size, as a matter of fact.

I will have you note there has been information that has been brought to my attention that would indicate that some of the nations, including the Soviet Union, are not respecting the size, the species or the numbers.

Mr. McKernan. That may be true. I frankly would doubt it.

I think that the Soviet Union and Japan, while they have not been in favor of as effective regulations as we, realize just as we do that these stocks must be protected.

My general experience with the Soviet Union is that they enforce agreed upon regulations very assiduously, and whenever we have had an opportunity to check up on them, we find that they are more severe in their penalties than we are when we have violations, and that they do generally live up to their international commitments.

Now, of course, Mr. Chairman, I have heard the same thing you have, and this is why we put such a high priority on an effective enforcement system.

Mr. DINGELL. Is there a mechanism inside the International Whaling Commission to deal with this, or has our country pushed for any particular mechanism to deal with the problem?

Mr. MCKERNAN. We have been pushing very hard for an effective enforcement system within the Commission.

Mr. DINGELL. Is there any at this time?

Mr. MCKERNAN. I am afraid, Mr. Chairman, that I do not know what you mean.

There is no Commission police force, but there is an agreement. There will be an agreement by the time the next whaling season rolls around, an agreement which will effectively provide for an exchange of enforcement personnel between the whaling nations at least. We are hopeful that there will be.

There is every indication there will be. Such an agreement has not been concluded yet, and there are still possible disagreements that might come up at the last minute.

Mr. DINGELL. What nations are not participating in the Whaling Commission's activities?

Mr. MCKERNAN. There are some minor whaling nations. I think Peru, Chile, Brazil, Spain, and Portugal.

Mr. DINGELL. How about Korea?

Mr. MCKERNAN. Not to our knowledge. I do not believe Korea is doing any whaling.

Mr. DINGELL. What is being done to bring these people into line to check the whale and conserve them?

Mr. MCKERNAN. We have been constantly trying to encourage these people to join, and some do attend as observers.

Mr. Chairman, their catch is minimal. About some 85 percent of the whales at the present time are taken by the large whaling nations, and about 15 percent by quite a large number of others who have very small land whaling stations and take their catch in the close vicinity of their own national territory or waters.

Mr. DINGELL. Can you name one specific action taken by our Government which would bring these people in under the convention for purposes of regulating the take?

Mr. MCKERNAN. I cannot recall anything at the present time.

I would be glad to examine our records and see.

Mr. DINGELL. The record will be kept open. I find myself hard put to justify somebody taking 15 percent without any controls at all; and we are going out of the business and when we have species on the brink of extinction.

Mr. MCKERNAN. None of these nations have increased their whaling take, and they all have a very small, relatively stable take from local stocks near their own coast.

Mr. DINGELL. Is there any pelagic sealing going on?

Mr. MCKERNAN. Pelagic sealing?

Mr. DINGELL. Yes.

Mr. MCKERNAN. Of the Pribilof fur seals, no. There is none.

To the best of my knowledge there is none on any species, but I am not familiar, for example, with the Indian Ocean and in some other places.

To the best of my knowldege, the answer is "No," but I could be wrong.

Mr. Dingell. We have heard reports that seals are showing up in the Pribilofs with nets and net markings around their necks.

Mr. McKernan. Could very well be.

Mr. Dingell. Any investigation of this?

Mr. McKernan. Could very well be, because there are great quantities of salmon nets in the Northwestern Pacific Ocean.

As you know, they do rob the nets, and sometimes they are caught in the nets. These salmon caught in ocean nets, of course, are immobile, and so the fur seals being pretty clever come up and simply take salmon from the nets on the high seas. This does occur, and I would expect the fur seals to have some net around them because of their habit of taking the easy way out when there are fish caught in nets.

Mr. Pelly. Just for the record, these are not nets that are lowered by American fishermen. They are all foreign fishing vessels that put down 10 mile long nets to take our salmon.

Mr. McKernan. I will confirm that. That is correct, Mr. Pelly. There are probably a few nets of U.S. fishermen around the Aleutian Islands.

The fur seals, of course, migrate as far south as Mexico, and as far over as Japan in their migrations during the wintertime, and when they migrate back to the Pribilofs in the Bering Sea, they migrate through the Aleutian Islands.

They might get some fish from U.S. nets in the vicinity of the Aleutian Islands, but for the most part I think the netting is Japanese.

Mr. Dingell. You say, however, you know of no pelagic sealing of the fur seal population going on at this time?

Mr. McKernan. That is correct. We have authority to board vessels of other member nations and inspect them.

Mr. Dingell. How about nonmember nations?

Mr. McKernan. We do not do so.

Mr. Dingell. How about the Koreans?

Mr. McKernan. Pardon?

Mr. Dingell. I understand the Koreans are taking these seals.

Mr. McKernan. To the best of my knowledge that is not so.

Mr. Dingell. Not so? No other nations taking them?

Mr. McKernan. No.

Mr. Dingell. How would your Department look on the idea of affording legislative authority to one of the Government agencies to be able to impose restrictions on import of animals taken in an inhumane way, the marine mammals, or from depleted stocks?

Mr. McKernan. I cannot speak for the Department, but I cannot see any great disadvantage of this. I must confess, though, that I think the appropriate way to deal with this problem is through international conservation conventions and international conservation means, because here we would have a much more direct effect.

Mr. Dingell. Assuming you cannot get this kind of right, and you are having considerable difficulty, what about a ban on all importations?

Mr. McKernan. In that case that might, under some circumstances, be an effective lever to push nations toward effective conservation arrangements and international agreements.

Mr. Dingell. Do you favor controls of taking of particular populations in an area where the population might be jeopardized or endangered, as opposed to perhaps a whole species or populations which are not endangered or in jeopardy?

Mr. McKernan. If I understand you correctly, you are asking me whether or not there should be particularly stringent regulations where you have small, localized stocks which might be easily depleted or wiped out? Yes, very much so.

The gray whale is a good example along the Pacific coast. You may recall, Mr. Chairman, and I recall in past years discussing this with you, at one time they were badly depleted.

The gray whale migrates up and down the Pacific coast of the United States, even looming in quite close to shore at times.

The Whaling Commission banned the killing of gray whales, and United States, even looming in quite close to the shore at times.

Mr. Dingell. What is the level of population which you deem to be appropriate for wise management and wise use?

Do you consider it a minimum population?

Mr. McKernan. Generally speaking, it is the level where the growth is most rapid and recruitment is the greatest, and where natural mortality is at a minimum.

Mr. Dingell. In relation to the total population?

Mr. McKernan. I have heard some rule-of-thumb estimates by some scientists dealing with marine mammals that this particular level is roughly half of the original stock; that is, where the population is at about half of the level of the undisturbed stock, you get the maximum annual increment each year.

Now, I think this is a very rough and ready sort of estimate, but I have heard the scientists use that particular rule for marine mammals.

Mr. Dingell. Would you think this should be the definition of this subcommittee with regard to wise use and maximum sustained yield?

Mr. McKernan. I have heard the discussion this morning, and I heard Dr. Talbot mention that he felt that other considerations ought to enter into any such definition, and I agree with that.

From the standpoint of the United States, and from the standpoint of our very broad interests in the environment, I would favor a level somewhat higher than one-half.

Now, if I can change my hat for a moment, and point out to you that I often times have to negotiate these issues with hard-headed foreign government officials, and a common denominator that is understood by almost everybody, and is not subject to much argument internationally, is that particular level and that definition.

By the way, that is why it occurs in the 1958 convention. The convention was discussed this morning briefly. The use of MSY occurs there because this is the kind of measure that anyone, no matter whether he understands or likes the esthetic aspects of whales or not, can at least understand, that is, the maximum sustainable yield, and it can be expressed in a number or at least a range.

From a practical point of view of getting acceptance both in developed nations and developing nations, this is still not a bad measure.

I personally would prefer perhaps some level somewhat higher than that, but I think that it is not a bad international basis.

You can see yourself, Mr. Chairman, with everybody having a little different point of view, having somewhat different objectives, some other level is very difficult to define.

Mr. DINGELL. Do you think we ought to take some steps to put some more teeth in the International Whaling Commission?

Mr. McKERNAN. Yes.

Mr. DINGELL. Do you have any suggestions as to what those could or should be?

Mr. McKERNAN. Well, reference was made this morning to consideration of the economics of the industry.

It is interpreted by us to be a secondary consideration, but still it has been used as a consideration for avoiding the hard realities of a substantially reduced catch.

I would favor a conservation convention which considered the conservation of the resource as the primary objective.

Mr. DINGELL. Is it fair to say that the International Whaling Commission has not been so constituted and the convention, as drawn, does not really consider faithfully that objective?

Is that not a fair statement?

Mr. McKERNAN. Yes; it certainly has done less than a satisfactory job, from my point of view.

It has not done as well as I consider it should have done in relation to its terms of reference, but I think it is by far the best vehicle we have at the present time, and I very frankly am in favor of staying with it, within it, and working within to try and correct its deficiencies.

Mr. DINGELL. Mr. McKernan, the committee is grateful to you and we thank you for your presence and you have been very helpful.

Our next witness is Mr. Howard Pollock, Deputy Administrator of the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

We welcome our former colleague and member of this committee.

STATEMENT OF HOWARD W. POLLOCK, DEPUTY ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE; ACCOMPANIED BY WILLIAM TERRY, RAUD JOHNSON, WILLIAM KIRKNESS, GEORGE HARRY, DR. WILLIAM PERRIN

Mr. POLLOCK. Thank you very much, Mr. Chairman.

Mr. Chairman, I would like to have come to the table with me Mr. Bill Terry and Mr. Raud Johnson.

Mr. Johnson is our general counsel for NOA.

Mr. Terry has been our deputy director of fisheries and is now our director of international relations.

I have some other gentlemen I would like to introduce in the audience, Mr. Chairman.

I have Mr. Kirkness, our acting associate director for research management.

I have Mr. George Harry, director of the Marine Mammal Biology Laboratory from Seattle.

I also have Dr. William Perrin, the fisheries biologist at Central Pacific Research Center in California.

There are others, but these are the main people I wanted to introduce at this juncture.

Mr. PELLY. I am glad to see the west coast is well represented.

Mr. DINGELL. Gentlemen, we are happy to welcome you to the committee.

Mr. Pollock, we are happy to recognize you for your statement at this time.

Mr. POLLOCK. For the record, as a former member of this committee, it is a particular pleasure to be here today to discuss the marine mammal matter in the legislation which has been introduced by so many Members of the Congress.

During the past several years public attention throughout the United States has been drawn in a dramatic fashion to the problem of conservation of marine mammals. In particular, strong public concern has been voiced with respect to the preservation of those marine mammals which appear to be threatened with extinction, and the question of the use of humane techniques for harvesting commercially important species. We of the National Oceanic and Atmospheric Administration (NOAA) want to assure the committee that we share each of these concerns and are deeply committed to the enlightened conservation and management of marine mammals. We believe this concern is amply demonstrated by our past activities. Moreover, because we are continually seeking ways to improve the conservation of these mammals, we have submitted to the committee our recommendations for a revised version of H.R. 10420 which, in our judgment, would provide the appropriate kinds of regulatory and research authority to supplement existing legislation and assist us in furthering the conservation of these animals.

Before discussing our proposed revision of H.R. 10420, however, we would like to briefly examine our activities to date on behalf of marine mammals so as to dispel some of the misunderstandings surrounding this subject.

NOAA is responsible under the Fur Seal Act of 1966 for the management of the northern Pacific fur seal harvest carried out on the Pribilof Islands off the coast of Alaska. This program has been one of the most successful international conservation efforts ever mounted. First, it has saved the fur seal from the threat of extinction. Prior to the inauguration of this program in 1911, these animals were hunted indiscriminately on the high seas without regard to sex, age, or season of the year, with the result that their numbers had dwindled to a mere 200,000. Today, under strict controls, the fur seal population has risen to approximately 1,200,000, a figure which is near the estimated optimum of from 1.5 to 1.8 million. Public statements by a few individuals to the effect that the present population has declined substantially from its size in the 1930's and 1940's are founded on misinformation. An analysis of the methods used by the Government in estimating the population figures for those years shows that the published estimates were much too high and did not reflect the actual situation.

Secondly, by limiting the fur seal harvest to Government-controlled taking on land, we have avoided many of the inhumane practices which are presently concerning the public. In contrast to the activities of the seal hunters of other countries operating on the ice between Labrador and Greenland, no baby seals are taken on the Pribilof Islands. Instead, for the most part, 3-to-4-year-old bachelor males are harvested, which are surplus to the breeding requirements of the herds. Moreover, only clubbing with a stunning instrument followed by exsanguination is used as a method of harvest. The skinning of live seals which, for example, H.R. 4370 and H.R. 7240 would seek to prohibit as a Federal crime, is never done on the Pribilof Islands, nor would any responsible person condone that or any similar practice.

There has been much comment concerning the present harvesting method. Alternative means have been tested by both governmental and nongovernmental scientists, using the most sophisticated investigative techniques to determine the most humane way of accomplishing the instantaneous loss of consciousness. To date no method has been found which is more humane to the seals than the one currently in use. This conclusion has been fully supported.

Mr. DINGELL. At this point, Mr. Pollock, it may be appropriate for the Chair to indicate that the Chair is going to direct the staff to review this if it is not unduly voluminous and we may want to include it in full in the record.

Without objection, the staff is directed to review the document and to see how it will fit into the record and include all or such portions as might be appropriate.

Mr. POLLOCK. Thank you, Mr. Chairman. I have a copy here. I think it has been forwarded to you, some copies, but may I furnish it to counsel.

Mr. DINGELL. You certainly may.

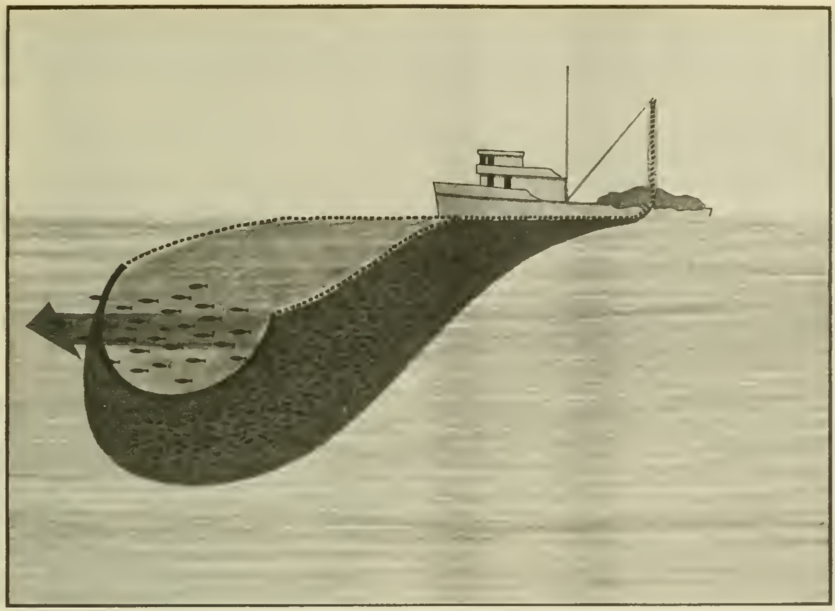
Mr. POLLOCK. Another problem which continues to receive our attention is that which arises in connection with the inadvertent taking of porpoises in the tuna fisheries in the eastern tropical Pacific as a result of the introduction of purse seines. This problem is of particular concern to us and of equal concern to the American tuna industry. It has been estimated by our Fishery scientists that approximately 250,000 porpoises may be inadvertently killed in this manner each year. These estimates, of course, are preliminary and based on a very small sampling. Nevertheless, the National Marine Fisheries Service is and has been actively engaged in research to eliminate these takings. It is working on a net with an experimental pneumatic gate designed to permit porpoises to escape unharmed, coupled with an acoustic simulator of killer whale sounds, to drive the porpoises from the net area.

Mr. Chairman, I have some drawings which I would like to show the committee, if I might, concerning these and then continue with my prepared statement.

Mr. DINGELL. Entirely appropriate.

Mr. POLLOCK. Mr. Chairman, this is a tuna fishing vessel with a purse seine net and this particular drawing shows the pneumatic gate. This is an experiment and I must say that the experiments thus far have not proven as satisfactory as we would like.

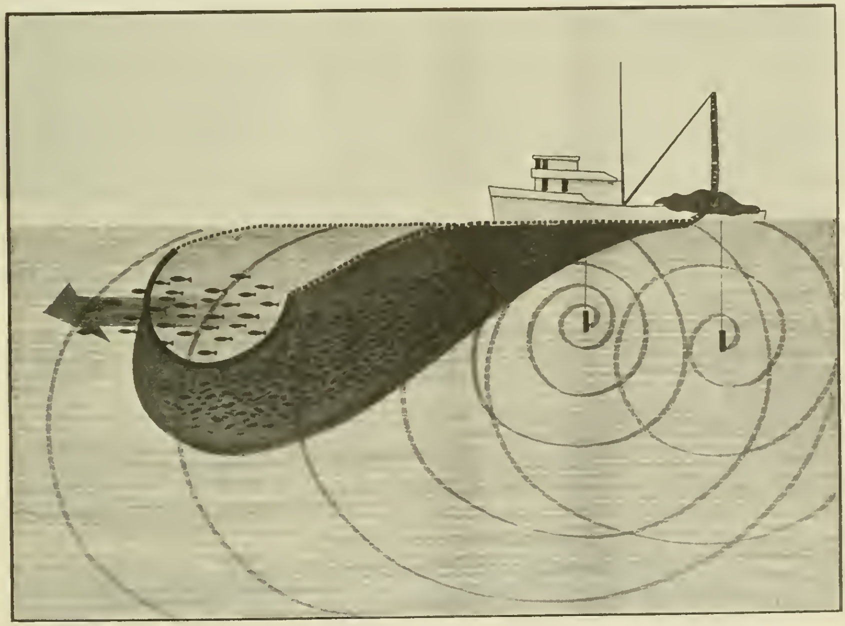
Mr. POLLOCK. We are not getting the kind of results we anticipated, but this is one of a number experiments.



These are all floats on the net and as the net is drawn in, the air is let out of this portion of the net so that it will sink and then as it sinks the porpoises will swim out or should swim out. Sometimes they do and sometimes they do not.

We have mixed success so far with them.

The bottom portion of the net here shows the tuna.



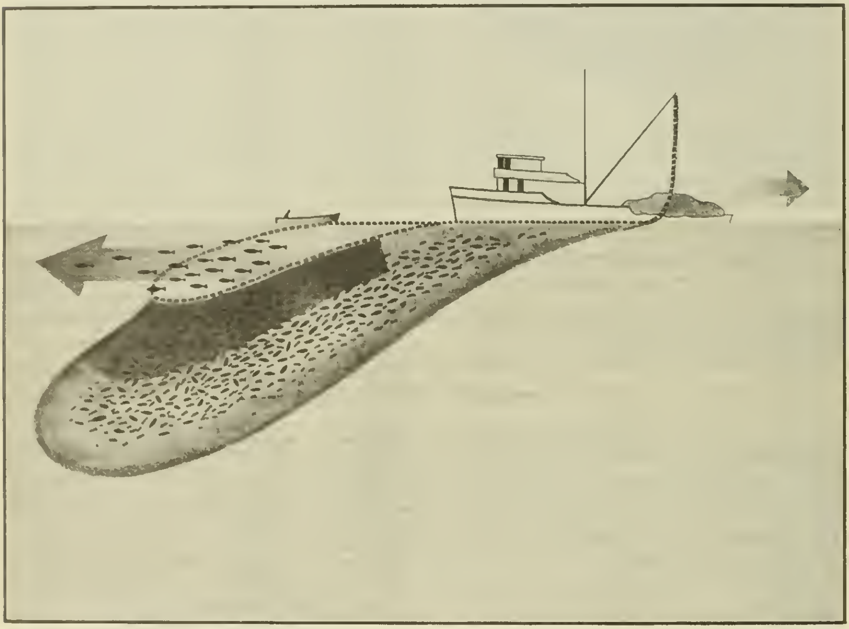
Mr. Pollock. Now, we have another picture of this same pneumatic gate with again the porpoises on the top to swim out and down here the tuna and over here we have some simulators to simulate the killer whale.

The intent of this is to frighten the porpoises and to scare them off. Again, there is some mixed success.

What happens oftentimes is this will cause them to panic and run and if the pneumatic gate doesn't work correctly they will run into the net.

This is one of a series of experiments that we have underway.

I have two other pictures here which will demonstrate the purse seine net when it is out or when it is being drawn into the vessel and this will demonstrate a combination of things.



Mr. Pollock. The portion of the net which is black at the back end of the net is called a Medina strip. It is a smaller mesh than the ordinary net.

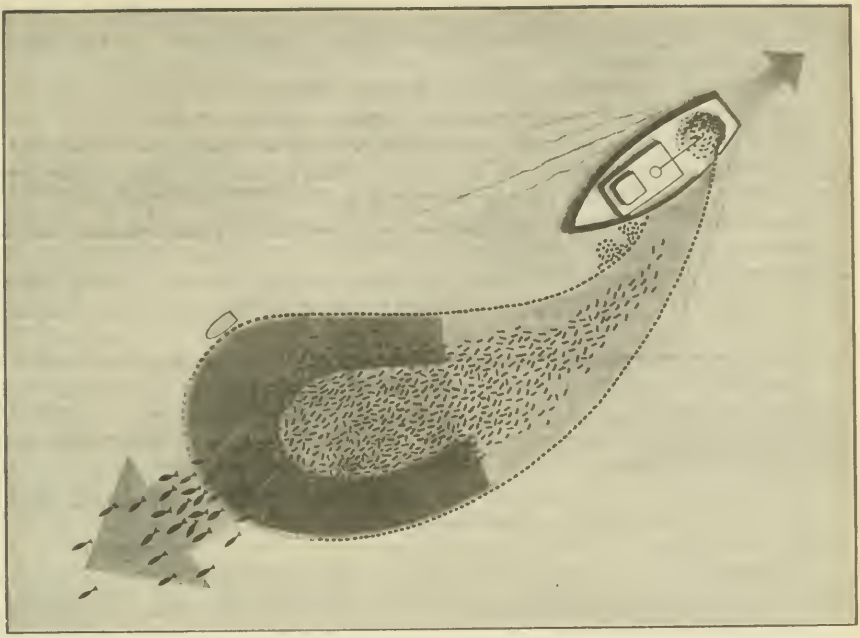
I have a sample if I might show the committee.

Generally, the net used in taking the tuna is a relatively large mesh, about 4 inches. This is measured by the stretching amount of the net. The next picture shows that as a net is brought into the vessel there is a combination of things that happen here.

Mr. Pollock. I should show the Medina net which is identified as a 2-inch mesh, very small. The purpose of this is to keep the porpoises from getting their noses caught in the net. They can get caught in the normal type of net and if they do, they drown.

There is a little bit larger mesh net, 5-inch width which is down at the bottom so that trash fish and other things can go on through the net.

The experiment by people in the industry of using the so-called



Medina strip net on this back portion is to keep the purpoises from getting their noses caught in there when they go out of the net or when they panic.

The vessel uses a process which is called backing down. This is the bow of the vessel as you can see.

As the vessel backs down, the portion of the net furthest away from the vessel will sink so that the porpoises can then swim out. It takes a skilled operator to keep the tuna inside the net and the porpoises out.

You can see from the experiments that are going on, again it is a mixed success-type thing.

We think this is the most promising at the present time, but we are experimenting with every conceivable thing, the industry and the National Marine Fisheries Service.

Mr. DINGELL. You might help the committee by indicating to us the fashion, and the place and the manner of the most acute mortality for porpoises in connection with this operation at a time convenient to you.

Mr. POLLOCK. All right, I think, Mr. Chairman, the problem there was an experiment just last week where the Medina net was not used, but we had a problem of a number of porpoises drowning. What they did was panic from the killer whale sound and they then ran into the net, as distinct from getting over it, and they got caught in the large mesh. This caused a problem.

Mr. DINGELL. Is it not a fact that the porpoise tends to dive when frightened?

Mr. POLLOCK. He will, to some extent. This Medina net, as I understand it, goes down some 40 feet or so and is 700 feet long so the presumption is whenever they do try to get out and dive, they would run into the smaller mesh net as distinct from the main portion of the net.

Again, we have a combination of a number of things; the backing down, the process of the killer whale sound, the Medina net, and other experiments going on.

I thought these would be of particular interest to the committee to get a picture of it.

Mr. PELLY. Does the killer whale frighten the tuna also?

Mr. POLLOCK. I presume it would, Mr. Pelly. I am not sure. They are down lower in the net.

The yellowfin tuna have a peculiar relationship with the porpoises. They circulate under the porpoises. This is how they identify them, that is, the fishermen identify the tuna by the location of the porpoises.

The tuna are down below the porpoises and if they were scared, they would simply stay in the net.

Well, as I indicated, and I am going back to my prepared statement in the middle part of page 5, unfortunately, in the initial tests of this device—the pneumatic gate—mechanical failures have occurred and the tests have not been entirely successful. Concurrently, industry has developed on its own initiative another type of net modification seeking to eliminate the inadvertent taking of porpoises. This modification appears to offer considerable promise, and both NOAA and the industry intend to pursue its development.

In addition, the industry has recently agreed with the National Marine Fisheries Service to engage in a cooperative research program. Among other things, this program will include the use by the Service of tuna purse seining vessels for a total of 60 ship days, and will permit the Service observers to accompany commercial tuna operations on 20 fishing trips. We are delighted with this cooperation and believe it will significantly advance our knowledge of porpoises and lead to means to avoid their incidental taking. Mr. Chairman, I want to emphasize that the yellowfin tuna fishermen love and protect the porpoise, and have more reason than anyone to insure the survival of the porpoises. Their very livelihood depends upon it. There are many documented stories of intrepid tuna fishermen who have thrown themselves into the sea within the purse seine to save the porpoises from downing, to help lift them over the nets, at considerable personal risk from sharks. Incidentally the industry has movies available of such situations should the committee wish to see them.

Mr. Chairman, I would now like to turn our attention to a discussion of the various bills which are under consideration by the committee. These bills may be categorized under four general headings.

The first group, exemplified by H.R. 6554, H.R. 6558, and other identical and similar measures, would simply prohibit the taking of any marine mammal for any purpose. This approach presents a number of difficulties:

1. An immediate total ban on the taking of all marine mammals without prior study or research of any kind is not a sound conservation measure. Such a ban, for example, would end the Alaska harvest of sea otters in areas where research has shown serious overpopulation problems and resultant die-offs of these animals.

2. It would probably constitute a breach of the Interim Convention on the Conservation of North Pacific Fur Seals, and could, therefore, lead to the resumption of indiscriminate high seas pelagic sealing by other countries. This is the very practice which nearly caused the extinction of these animals prior to 1911 and brought about the need for the international treaty.

3. It would obliterate the cottage industries of the Aleuts and Eskimos of the Bering seacoast, where native handicrafts based on marine mammals represent a major source of income.

4. It would prevent commercial fishermen from protecting their catches and gear from the depredations of hair seals and sea lions.

5. It would deny the native residents of small coastal communities along the Bering Sea and Arctic coast an important source of food which has been derived from the marginal sea.

6. It would create problems with several coastal States which already regulate and manage marine mammal resources within State waters. This is so because these bills would appear inconsistent with certain parts of section 3 of the Submerged Lands Act of 1953 (43 U.S.C. 1301).

Mr. Dingell. Mr. Pollock, it would be helpful to the committee to suggest what those sections are and what they do, if you please.

Mr. Pollock. Do you want me to go into the bills that prohibit it?

Mr. Dingell. Just refer to the sections of the Submerged Lands Act of 1953.

Mr. Pollock. Section 3, Mr. Chairman.

Mr. Dingell. If it would be comfortable to you, you can supply that information.

Mr. Pollock. Mr. Chairman, I think, generally, we would be happy to provide more specifically that information but section 3 simply provides the States the authority to manage these resources under the Submerged Lands Act of 1953.

It is the natural resources portion and this would include the living resources of the sea, I am advised.

Mr. Dingell. I think it would be helpful if you would, and it would be perfectly appropriate, if you submit it.

Mr. Pollock. Very good.

(Information to be supplied follows:)

Conflict With H.R. 6554 and H.R. 6558

The portion of the Submerged Lands Act which conflicts with H.R. 6554 and H.R. 6558 is Section 3(a) which provides in pertinent part:

"It is hereby determined and declared to be in the public interest that (1) title to and ownership of the lands beneath navigable waters within the boundaries of the respective States, and the natural resources within such lands and waters, and (2) the right and power to manage, administer, lease, develop, and use the said lands and natural resources all in accordance with applicable State law be, and they are hereby, subject to the provisions hereof, recognized, confirmed, established, and vested in the assigned to the respective States . . ."

Mr. Pollock. The second group of bills are concerned with the use of humane methods in taking marine mammals. It includes such measures as H.R. 7240 and H.R. 4370 which prohibit, among other things, skinning animals alive or clubbing them. As previously noted, no fur seals under our jurisdiction are skinned alive, and clubbing is, to date, the most humane method of harvesting them. H.R. 4370 presupposes that a more humane manner of harvesting seals will be found prior to July 1, 1972, and forbids clubbing thereafter. It may well be that no better method is found by that time, in which case the bill would, in effect, require the use of a less humane method.

The third group of bills, such as H.R. 690, which you introduced, Mr. Chairman, and part of H.R. 6804, are primarily directed at research and investigation into the marine mammal problem. We strongly advocate provision for adequate research so as to improve conservation and management measures. However, we also believe that authority to issue regulations, when research has shown the way, should be authorized, and accordingly, our suggested amended version of H.R. 10420 provides for both research and regulation. Moreover, we believe that the studies to be undertaken should be broader than some of the bills in this third group contemplated.

Mr. Chairman, this brings us to the discussion of H.R. 10420. The committee is already in receipt of our report detailing the various difficulties we foresee with this bill in its present form and indicating the amendments which we suggest.

We do not know whether our report to the committee on that bill has been made part of the record or not.

Mr. DINGELL. It has not, yet, but the Chair has directed that the reports be inserted in the record at the appropriate point and I construe that instruction to the staff to deal with the reports on all of the bills.

Mr. POLLOCK. Thank you very much, Mr. Chairman.

We would presume that this would be an appropriate place because we are talking about aspects of the bill with which we have disagreement.

Mr. DINGELL. I think the report can appear earlier, but you can discuss those aspects of it.

Mr. POLLOCK. We would now like to take this opportunity to explain why we have requested additional regulatory authority in revised H.R. 10420 and to outline briefly the provisions of the bill as we propose to amend it.

Mr. DINGELL. At this point if you would like to request the draft of the bill be submitted to us to be inserted, we will do that and without objection it will be inserted at the point in the record I have previously referred to.

Mr. POLLOCK. Thank you, Mr. Chairman.

Then we would have the proposed amendments submitted by the Department plus our letter to the chairman of the full committee which would indicate the problems we have with the original bill.

Mr. DINGELL. Yes, sir, we want all the assistance you folks can give us and we want to have the record full and complete and in the fashion that you want to present it to us.

Mr. POLLOCK. Thank you very much.

Under existing law pertaining to the high seas beyond 12 miles, except for the sea otter, Federal authority for management extends only to activities concerning those marine mammals which are the object of international agreements to which the United States is a party. In most cases the scope of jurisdiction is subject to agreed international limitations which may not always fit the particular circumstances. Revised H.R. 10420 would expand that authority and would provide standby management authority in the case of nonregulated species, and a logical purpose for the expanded study of those animals.

Section 2 expresses the policy of the United States as one of conservation and management of marine mammals and provides broad guidelines for the exercise of regulatory authority, taking into account carefully enumerated criteria.

Section 3 provides definitions.

Section 4 defines the authority conferred upon the Secretaries of Commerce and Interior. The division of authority is consistent with the 1956 Fish and Wildlife Act which was confirmed by both the executive and the legislative branches when Reorganization Plan No. 4 of 1970 was approved.

Section 5 is a prohibition section dealing with the taking of marine mammals and related activities.

Section 6 creates procedures for the promulgation of regulations. Subsection (b) spells out the several criteria which would guide the Secretary in the formulation of appropriate regulations. There is a specific provision for insuring public involvement in this process.

Section 7 provides for penalties in cases where provisions of the act and regulations thereunder have been violated.

Section 8 provides for the enforcement procedures and confers authority for judicial process.

Section 9 establishes a Marine Mammal Commission, appointed by the President, and also provides for an Executive Director. In our view, the Commission created by this section would play an important role in providing to the Government and the public an independent study and evaluation of the conservation problems affecting marine mammals. Fundamental issues underlie every aspect of marine mammal activities involving not only scientific research in a traditional sense, but matters more closely related to the general public conscience. We anticipate that the Commission will be able to provide guidance in this area.

Section 10 enumerates the duties and responsibilities of the Commission. Among other things, it specifically would require a comprehensive review of activities conducted under the Fur Seal Convention and Whaling Convention. It would require that recommendations be made at least annually, and possibly more frequently, to appropriate Federal agencies concerning additional measures to further the policies of the act. These recommendations must take into account, among other things, the humane methods of managing marine mammals. It would also require consultations with Natives concerning recommendations which might affect them. It would authorize the Commission to make recommendations to the Secretary of State concerning international activities related to marine mammals. Finally, it would authorize the Commission to recommend revision of the endangered species list as it pertains to marine mammals.

Section 11 authorizes the Secretary to seek cooperative arrangements with the States concerning marine mammals.

Section 12 deals with international relationships.

Section 13 authorizes the respective Secretaries to carry out such research and development programs as are deemed necessary to carry out the purposes of the act.

Section 14 is the standard separability clause.

Section 15 is the authorization section.

Thank you very much, Mr. Chairman, for this opportunity to express our Department of Commerce/NOAA/NMFS views on this important issue. I would like to point out that our report to the committee, including our revised version of H.R. 10420 and this testimony, have been developed in consultation with all of the affected departments and agencies of the executive branch. I will be pleased to try to answer any questions the committee might have.

Mr. DINGELL. Mr. Pollock, you have given the committee very helpful and complete testimony.

I would like to just ask this one question to make the record very clear.

I assume that you are saying that if H.R. 10420, as amended as you have suggested, that the Department of Commerce would support the bill?

Mr. POLLOCK. Very much in support of the bill.

Mr. DINGELL. Mr. Pelly?

Mr. POTTER. Mr. Chairman, we have had some extensive information supplied to us by the Department of Commerce on its marine mammal program, primarily with regard to fur seals. If you think it desirable, this might be an appropriate place in the record for this information to appear.

Mr. DINGELL. Without objection, it is so ordered.

(The correspondence follows:)

AUGUST 4, 1971.

Hon. MAURICE H. STANS,
Department of Commerce,
Washington, D.C.

DEAR MR. SECRETARY: As you probably are aware, a number of bills presently pending before our Committee would impose a partial or total ban upon the killing of ocean mammals. I anticipate opening hearings on this question early in September, and in this connection there are a number of inquiries which should be resolved before these hearings begin. Your assistance will be appreciated.

1. What legal tools does your Department presently have which permit the imposition of effective controls over the taking of ocean mammals?

2. Would any additional authorities be of assistance to you, and if so, would you recommend their enactment? Please specify.

The major areas of controversy appear to center around the Pribilof fur seal herd. With respect to the seal population that returns to the island under American control.

3. What do you believe to be the natural size of that herd? Upon what authority?

4. What do you believe to be the optimum size of that herd? Upon what authority?

5. What is the present size of that herd, and how is this estimated?

6. If you know, please furnish information describing:

   (*a*) The member of seals taken for each of the last ten years.

   (*b*) The age and sex of such animals.

   (*c*) When and under what circumstances females have been taken. Were these pregnant or nursing?

   (*d*) The size of the herd for these ten years.

   (*e*) How many pups have been born for these years.

7. Is it your belief that the present population could not grow further without damage to the breeding stock through overpopulation?

8. Please supply copies of the Interior 1966 Task Force recommendations with respect to the Pribilof herd. Have these recommendations all been adopted? If not, why not?

9. How many Alauts are presently employed in the harvest of seals on St. Paul? What sums have been paid to them for their work over the past ten years? What percentage of their total income is this?

10. What is the dollar value of the skins given to Japan and Canada under the treaty for each of the last ten years?

11. If you know, how many seals were killed by pelagic hunting for each of the past ten years?

12. What is the justification for continuing to drive the seals inland for the killing?

13. What is believed to have been the size of this herd before commercial operations began? What has been the low point of the seal population?

14. Of the current population, what is believed to be the number of (a) harem bulls, (b) bachelor males, (c) females of breeding age, and (d) pups (seals up to three years old)?

15. What guidelines have been set, if any, for the killing of females?

16. What do you believe to be the maximum sustainable yield of this herd? What is the optimum sustainable yield?

17. What figures do you have to indicate any attrition to the herd by reason of starvation or malnutrition?

I recognize that this is an extensive list of questions, although I anticipate that most of the answers to these can be readily found by reference to statistics already on hand. If it should appear that some of these questions cannot be immediately answered, I would appreciate your forwarding these answers no later than August 16 but expediting those which can be readily obtained.

Thank you for your assistance.

Sincerely,

JOHN D. DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation.

THE SECRETARY OF COMMERCE,
Washington, D.C., September 7, 1971.

Hon. JOHN D. DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: By letter dated August 4, 1971, you raised 17 questions on behalf of the Subcommittee on Fisheries and Wildlife concerning the management of ocean mammals.

Personnel of the National Marine Fisheries Service in this Department's National Oceanic and Atmospheric Administration have prepared the enclosed report in response to these questions.

Your continued interest in our program is appreciated and we trust that you find our comments helpful.

Sincerely,

MAURICE H. STANS,
Secretary of Commerce.

Enclosure.

U.S. DEPARTMENT OF COMMERCE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
NATIONAL MARINE FISHERIES SERVICE,
August 18, 1971.

REPORT ON QUESTIONS RAISED BY THE COMMITTEE ON MERCHANT MARINE AND FISHERIES ON MARINE MAMMALS

Question No. 1. What legal tools does your Department presently have which permit the imposition of effective controls over the taking of ocean mammals?

Answer. Legal control exercised over marine mammals in this Department is based on the Fish and Wildlife Act of 1956, as amended (70 Stat. 1119; 16 U.S.C. 742a–742), which states that the Bureau of Commercial Fisheries (now the National Marine Fisheries Service) shall be responsible for whales, seals, and sea lions. The Bureau of Sport Fisheries and Wildlife shall be responsible for sea mammals except whales, seals, and sea lions. More specifically, we have authorities regarding seals under the Fur Seal Act of 1966 (80 Stat. 1091; 16 U.S.C. 1151 *et seq.*) and regarding whales under the Whaling Convention Act of 1949 (64 Stat. 42; 16 U.S.C. 916–9161). The legal authorities over fur seals and whales as stated in these Acts implement the 1957 Interim Convention on Conservation of North Pacific Fur Seals, and the 1946 International Convention for the Regulation of Whaling.

Question No. 2. Would any additional authorities be of assistance to you, and if so, would you recommend their enactment? Please specify.

Answer. No specific authority other than that cited in answer to question 1 has been granted this Department. Although the several states generally regulate marine mammals within territorial waters, and some regulate their own citizens outside of territorial waters, there is no general Federal authority granted to this Department for marine mammals. We are considering what types of additional authority, if any, might be desirable, but we are not in a position at this time to put forth any specific legislative recommendations on behalf of the Administration.

Question No. 3. What do you believe to be the natural size of the (Pribilof fur seal) herd? Upon what authority?

Answer. We define the natural size of the herd as the average population level maintained prior to commercial exploitation. There are no historical data available for this population, but it would probably be 2.0 to 2.5 million.

Question No. 4. What do you believe to be the optimum size of that herd? Upon what authority?

Answer. Because we have no additional criteria on which to base a calculation for optimum population, we assume optimum population is the same as the level for maximum sustainable yield (MSY). Maximum sustainable yield is estimated from a population producing 400,000 (±50,000) pups, which would be produced by a herd of about 1.5 to 1.7 million. This is based on work done by the Marine Mammal Laboratory in Seattle and has been reviewed by other seal biologists.

Question No. 5. What is the present size of that herd, and how is this estimated?

Answer. We estimate that conservatively the total number of fur seals in the Pribilof Islands population slightly exceeds 1.2 million as follows:

	1969–70	Average 1961–70
Pups	305, 000	360, 000
Age 1	150, 000	180, 000
Age 2	110, 000	125, 000
Females ≥ 3 years	560, 000	650, 000
Males ≥ 3 years	90, 000	90, 000
Total	1, 215, 000	1, 405, 000

This estimate is based on a combination of the estimates of the numbers of pups born in 1969 and 1970, a weighted pregnancy rate, average survival rates, and other estimates and counts including two types of marking programs.

Question No. 6. If you know, please furnish information describing:

(*a*) *The number of seals taken for each of the last ten years.*

(*b*) *The age and sex of such animals.*

(*c*) *When and under what circumstances females have been taken. Were these pregnant or nursing?*

(*d*) *The size of the herd for these ten years.*

(*e*) *How many pups have been born for these years?*

Answer. 6. (*a*) (*b*) (*c*).

AGE AND SEX OF SEALS TAKEN, AND NUMBER OF PUPS BORN, PRIBILOF ISLANDS, 1961–70

	Age								
	2	3	4	5	6	7 and older[1]	Unclassified	Total	Number of pups born
1961:									
Males	3, 711	57, 871	19, 836	750	14		15	82, 197	438, 000
Females	449	4, 509	6, 798	4, 436	4, 723	22, 934		43, 849	
1962:									
Males	2, 255	32, 346	17, 856	1, 017			206	53, 680	362, 000
Females	394	4, 451	8, 501	6, 139	3, 354	20, 718	203	43, 750	
1963:									
Males	2, 019	18, 642	18, 874	2, 127	90		634	42, 386	343, 000
Females	699	2, 918	7, 915	8, 518	3, 970	19, 563	369	43, 952	
1964:									
Males	3, 678	29, 416	13, 112	2, 256	135		383	48, 980	370, 000
Females	346	3, 354	3, 325	3, 543	1, 822	2, 212	1, 850	16, 452	
1965:									
Males	1, 431	22, 745	14, 638	1, 418	135		1, 755	42, 122	345, 000
Females	162	1, 336	2, 556	1, 089	579	842	3, 868	10, 432	
1966:									
Males	3, 533	31, 106	16, 030	1, 770	33			52, 472	388, 000
Females							391	391	
1967:									
Males	2, 940	34, 613	15, 523	1, 679	136		829	55, 720	(2)
Females	21	935	1, 579	1, 552	1, 166	4, 466	377	10, 096	
1968:									
Males	2, 106	23, 149	16, 959	1, 948	130		1, 333	45, 625	(2)
Females	35	704	2, 630	1, 836	1, 581	6, 511	38	13, 335	
1969:									
Males	3, 051	20, 471	12, 769	2, 149	238			38, 678	304, 000
Females							230	230	
1970:									
Males	1, 823	25, 092	13, 822	1, 278	106			42, 121	306, 000
Females							121	121	

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[1] Females 7 and older have been grouped because their ages cannot be determined without considerable error. Generally, however, most females taken have been between ages 3 and 12. Very few live longer than 20 years

[2] No estimate.

Answer. 6(*c*). A small number of females are mistaken for males and harvested accidentally each year. In 1954 and 1955, however, some females were purposely taken for studies of reproduction.

Most of the females harvested since 1956 have been taken from hauling grounds. A good proportion of these animals were either not yet of breeding age or were old and apparently had not given birth to a pup during the year examined.

From 1956 through 1963, females were taken under a herd reduction program designed to reveal the level of maximum sustained yield. From 1964 through 1968, only those females not needed to maintain the population level were harvested. During these years, the response of the herd (primarily with respect to survival of the young) to a population level below its natural peak was appraised.

The number of females (and the number of pups born) is now being allowed to increase to a higher level below their natural peak. Thus, females have not purposely been taken since 1968. When the new population level is reached, the number of females (and hence the number of pups born) will be maintained there by taking surplus animals not needed as recruitment into the breeding reserve. Measurements will continue to be made of the response of the herd to manipulation of its population level to determine the level of maximum sustained yield.

We esitmate that generally from 40 to 60 percent of the females disptached had given birth to pups that year. This changes somewhat from year to year. In the year for which we have the best data, 1968, only 34 percent of the females had given birth. Many pups, of course, had died before the females were harvested. We estimate that generally 40 percent or less of the females which have been harvested had live pups.

Answer. 6(*d*). Information contained in number 5 above.

Question No. 7. Is it your belief that the present population could not grow further without damage to the breeding stock through overpopulation?

Answer. We are now hoping that the population will increase to a level where about 400,000 to 450,000 pups are born annually. The only action that we can take to have the herd increase is to protect females. However, survival to age 3 years for recent year classes has been low, and unless the survival rate increases the population will remain at about its present level, or at best increase very slowly.

Question No. 8. Please supply copies of the Interior 1968 Task Force recommendations with respect to the Pribilof herd. Have these recommendations all been adopted? If not, why not?

Answer. A copy of the Task Force Report and a copy of "Investigations and Experiments Pertaining to Fur Seal Slaughtering Methods" which summarizes our conclusions and actions concerning the Report, are enclosed.

Question No. 9. How many Aleuts are presently employed in the harvest of seals on St. Paul? What sums have been paid to them for their work over the past ten years? What percentage of their total income is this?

Answer. In 1971, a total of 197 Aleuts (40 permanent, 157 temporary) were employed on jobs related to seal harvesting. The 10-year earnings for Aleuts employed in sealing are as follows:

1962	$420, 000
1963	772, 800
1964	879, 700
1965	808, 900
1966	821, 300
1967	816, 100
1968	784, 900
1969	827, 600
1970	905, 500
1971	965, 000

We do not know exactly what percentage of total annual income the above wages represent, but we believe it constitutes more than 90 percent. Additional income is derived from performing community services and from unemployment insurance.

Question No. 10. What is the dollar value of the skins given to Japan and Canada under the treaty for each of the last ten years?

Answer. The following table shows the number and estimated value of fur sealskins given to Japan and Canada during the past 10 years as required by the treaty:

Year	Japan and Canada 30 percent share of skins		Value to Japan and Canada
1961	37,813	18,906	$2,836,000
1962	29,232	19,616	2,338,600
1962	25,901	12,905	2,538,300
1964	19,630	9,815	1,688,200
1965	15,768	7,889	1,116,700
1966	15,859	7,924	1,696,900
1967	19,745	9,872	1,777,000
1968	17,688	8,844	1,609,600
1969	11,672	5,836	1,062,200
1970	12,673	6,336	887,100

The value of the Japanese and Canadian share of the harvest in any year is based on the average sale price for the same year. In actuality, however, the skins are not sold until about two years after they are harvested. This is due to the lengthy processing time required to process quantities sufficient for sale purposes.

Question No. 11. If you know, how many seals were killed by pelagic hunting for each of the past ten years?

Answer. No pelagic commercial sealing has been permitted since 1911. The following table shows the number of seals collected on the high seas during 1961–1970 strictly for research purposes. These collections are reported annually by the scientific committee of the international North Pacific Fur Seal Commission.

Year	United States	Canada	U.S.S.R.	Japan	Total
1961	1,352	486	600	1,585	4,023
1962	1,483	501	603	1,529	4,116
1963	1,355	260	600	1,593	3,808
1964	883	115	600	1,339	2,937
1965	419	42	509	1,149	2,119
1966	444	249	309	715	1,717
1967	132	101	278	910	1,421
1968	830	500	229	263	1,822
1969	334	291	1	285	911
1970	405	118	153	570	1,246
Total	7,637	2,663	3,882	9,938	24,120

Question No. 12. What is the justification for continuing to drive the seals inland for the killing?

Answer. Seals to be harvested are driven *relatively* short distances inland from the hauling grounds primarily for several reasons. Harvesting operations conducted next to a hauling ground would in turn create excessive disturbance among breeding animals on the adjacent rookery. Secondly, the harvesting grounds must be accessible by truck.

Question No. 13. What is believed to have been the size of this herd before commercial operations began? What has been the low point of the seal population?

Answer. See number 3 above for discussion on natural population. The lowest population level was in 1911 when it was estimated at about 200,000.

Question No. 14. Of the current population, what is believed to be the number of (a) harem bulls, (b) bachelor males, (c) females of breeding age, and (d) pups (seals up to three years old)?

Answer. Information is contained in the table provided in reply to number 5 above. The population estimates in the subject table are made after the harvest and after all pups are born. Normally we estimate there are between 10,000 and 20,000 harem bulls and 60,000 to 80,000 bachelor males. The harvest consists of a specified number of bachelor males. The harem bulls would be included in the 90,000 figure for males ≧ 3 years, but not those bachelor males which have been harvested. The 1970 harvest was about 42,121 bachelor males predominantly in the 3–4 year age class.

Question No. 15. What guidelines have been set, if any, for the killing of females?

Answer. Our answer to question 6(c) generally explains the overall program of manipulating the population level by removal of females from the herd. Guidelines for use in deciding numbers of females to take are: (1) That with an estimated pregnancy rate of 0.6, the number of pups born equals 60 percent of the females of breeding age (4 and older); (2) that the estimated annual death rate among breeding females is 0.11, which means that 11 percent of these animals must be replaced each year to maintain the breeding stock, and (3) that with an approximately equal survival rate of the sexes to age 4, the number of females available from each year class as potential breeders can be estimated from the survival (harvest) of males. The take of females is thus adjusted to fit the program objective and needs of the herd in terms of breeding stock.

Question No. 16. What do you believe to be the maximum sustainable yield of this herd? What is the optimum sustainable yield?

Answer. See information provided in number 4 above.

Question No. 17. What figures do you have to indicate any attrition to the herd by reason of starvation or malnutrition?

Answer. The death rate among fur seals is high early in life, then tapers to a low level before rising among older animals. The main cause of death among a few hundred pups examined on St. Paul Island since 1962 has been malnutrition (range 21–48 percent). Hookworm disease, bacterial infections, and injuries follow in order of importance. Compared to the total number of dead pups (about 281,000) counted on the Pribilof Islands since 1962, it is difficult to say whether or not the relatively small sample of pups examined is representative of reality. Further, by far the greatest proportion of mortality occurs at sea after the pups leave the Pribilof Islands in November. Good information is lacking on the relative causes of death among fur seals at sea, and on what role malnutrition and other factors play in the magnitude of mortality.

U.S. DEPARTMENT OF COMMERCE,
NATIONAL MARINE FISHERIES SERVICE,
August, 1971.

INVESTIGATIONS AND EXPERIMENTS PERTAINING TO FUR SEAL SLAUGHTERING METHODS

SUMMARY

1. Criticism of the method used to harvest fur seals on the Pribilof Islands has been inreasing in recent years. The criticism has been directed primarily against use of a club to stun fur seals. The Marine Mammal Resources Program has responded to the compliants by seeking expert advice on how to improve procedures of harvesting fur seals.

2. In 1967 Dr. Elizabeth Simpson, a veterinarian from the University of Cambridge in England, repre senting the World Federation for the Protection of Animals, and Mr. Brian E. Davies, representing the Humane Society of the United States, observed the harvest on the Pribilof Islands. Dr. Simpson concluded "that the Pribilof fur seal harvest is at present being carried out in a reasonably humane fashion, which could, however, be improved by attention to a few details." Mr. Davies recommended several changes to make the harvesting procedures more humane and suggested that research be started on mechanical methods of slaughter.

3. In 1968 the Department of Interior appointed a task force consisting of representatives from the National Academy of Sciences, The Humane Society of the United States, The Livestock Slaughter Division of the Department of Agriculture, Bureau of Sports Fisheries and Wildlife and, Bureau of Commercial Fisheries. Alternative methods of killing were investigated, including carbon dioxide induced hypoxia, electrocution, shooting, and stunning with clubs and concussion bolts. The task force decided not to test drugs because of the residue remaining in the meat and the fact that extensive work had already been done on drugs. The results of the tests indicated that none of the alternative methods was as rapid and effective as the traditional method, nor were they adaptable to the harvest situation.

4. However, the 1968 Task Force Report included recommendations for changes in operational procedures that would cause stress to the animals, most of which have been put into effect.

5. In 1969 a contract was awarded the Virginia Mason Research Center in Seattle to conduct a series of experiments using carbon dioxide and nitrogen gasses to dispatch fur seals. These preliminary tests were followed by more refined experiments during the 1970 season testing carbon dioxide, nitrogen, the drug succinylcholine and conventional stunning and bleeding methods. Stunning

and bleeding achieved unconsciousness and death much more rapidly than any other method.

6. The Research Council of the American Veterinary Medical Association recommended that their Panel of Euthanasia observe the 1971 harvest and make recommendations regarding all possible methods of dispatching fur seals. The expenses of this panel will be paid by the Marine Mammal Resources Program.

7. The estimated direct cost for implementation of the 1968 Task Force recommendations is $124,000.

For the past several years there has been mounting criticism of the annual harvest of northern fur seals on the Pribilof Islands. The criticism has been directed to the United States Government by animal protection groups such as the Friends of Animals, Inc., International Society for the Protection of Animals, the Humane Society of the United States. Much of the present controversy started in 1965 when the Canadian Federation of Humane Societies and the International Society for the Protection of Animals publicized the harvesting methods used on harp seals and hooded seals in the Gulf of St. Lawrence. This situation, together with increasing public concern with ecological and environmental issues, turned attention to the fur seal on the Pribilof Islands.

One of the first critics of the Pribilof Islands operations was the World Federation for the Protection of Animals. Dr. Elizabeth Simpson, a veterinarian from the University of Cambridge, England, represented the World Federation for the Protection of Animals during her visit to the Pribilof Islands in 1967 to investigate harvesting practices. Mr. Brian D. Davies, representing the Humane Society of the United States, reviewed the Pribilof Islands operations at the same time. Dr. Simpson concluded ". . . that the Pribilof fur seal harvest is at present being carried out in a reasonably humane fashion, which could, however, be improved by attention to a few details."

Mr. Davies concluded that there were two courses of action open to those interested in the welfare of animals. These are: (1) control the hunt so as to minimize cruelty, or (2) abolish fur seal hunting on the Pribilof Islands. He stated that, "It is not the province of this report to decide matters of principle."

Mr. Davies made several recommendations regarding improvements in harvest methods and suggested that research be started on mechanical methods of harvest, similar to those used in Federally inspected slaughterhouses.

In 1968 the Department of the Interior appointed a Task Force to observe the Pribilof harvest and to recommend changes if needed. Representatives from the National Academy of Sciences, the Humane Society of the United States, the Livestock Slaughter Division of the U.S. Department of Agriculture, Bureau of Sport Fisheries and Wildlife, and Bureau of Commercial Fisheries were on the Task Force. In addition, observers were present from the New Brunswick Society for the Prevention of Cruelty to Animals and the International Society for the Protection of Animals. The Task Force tested several methods in an attempt to find an alternative to the method of stunning and bleeding now used. Methods tested included carbon dioxide induced hypoxia, electrocution, shooting, and stunning with clubs and concussion bolts.

With regard to methods of harvesting, the Task Force concluded that: none of the methods tested appear to be readily or quickly adaptable to the fur seal harvest at this time, and unless the problems of sorting groups and restraining individual animals can be solved, otherwise effective methods of euthanasia could not be used in harvesting operations.

The 1968 Task Force Report included recommendations for the improvement of operational procedures related to the fur seal harvest. These recommendations were directed toward increasing efficiency in dispatching and reducing stress to the animals. Changes in procedures resulting from the recommendation are as follows:

Reduction in length of drives from rookeries to the harvesting fields.

St. Paul Island.—The Task Force commented specifically on the need for improvement at Northeast Point. Roads have since been extended into new harvesting areas closer to traditional hauling grounds on Northeast Point as well as on Polovina and Reef Rookeries, and a new harvesting area and access road is being developed at Tolstoi Rookery.

St. George Island.—Two new access roads and harvesting areas have been developed on North Rookery. This improvement was not included in the Task Force recommendations.

Since 1968, the overall length of the drives has been reduced 61 percent from 15,630 to 6,080 feet on the following rookeries:

[In feet]

Location	Distance, 1968	Distance, 1970
Polovina (1)	1,600	[1]
Polovina (2)	2,810	1,030
Polovina Cliffs	1,510	620
Northeast Point (east)	2,280	1,630
Northeast Point (west)	4,000	940
Reef Point (1)	1,630	860
Tolstoi, from rookery	1,800	1,000
Total	15,630	6,080

[1] To be shortened.

Removal of obstacles such as volcanic rock which cause stress to the seals during the drive.

One of the more troublesome areas that required improvement was at Zapadni Rookery. This area has been improved by grading the bank slopes to provide easier access for animals to the harvesting area. Many of the hauling grounds have rock out-croppings over which the seals must be driven but which cannot be removed without greatly disturbing the landscape.

Provide relief clubbers to improve accuracy.

Before 1968, the entire seasonal operation was conducted by four skilled employees. In 1968, the harvesting crew was increased to five, and in 1969 and 1970 to seven.

Reduce the number of seals to be dispatched at one time to lessen the possibility of multiple blows.

The number of seals in the pods has been reduced as recommended by the Task Force except during the very end of the season when increasing numbers of females enter the drives and must be rejected. When the drives consist almost entirely of male animals the pods are limited to 6 to 8 animals. Late in the season when females are prominent in the drives the number of animals in each pod is increased in order to keep field operations moving rapidly and to limit the time the animals must be held in the drive.

The Task Force made the following recommendations for future studies:

1. In order to establish criteria for juding both the effectiveness and the humaneness of euthanasia methods, techniques to measure sensitivity to pain, time of unconsciousness, and time of death must be developed.
2. Consultations with slaughter research and development workers and a thorough review of literature pertinent to physiological and behavior characteristics of diving mammals and euthanasia techniques should be carried out.
3. A feasibility study utilizing this information in the light of the behavior of wild animals and the various ecological, physical, social, and economic facets of life on the Pribilof Islands is necessary.
4. Following this, plans for research programs to explore the physiological and behavioral characteristics of the northern fur seal which may determine euthanasia methods should be developed.

As a result of these recommendations a thorough review was made of the literature pertinent to the physiological and behavioral characteristics of diving mammals and to euthanasia techniques. Problems associated with harvesting methods have been discussed with several experts and also with the American Veterinary Medical Association at its annual meeting in 1970. As a result the Research Council of the AVMA made a recommendation that their Panel on Euthanasia should witness the 1971 harvest and judge the humaneness of all known methods that could be adapted to the sealing operation, including the present method. Six members of the panel have expressed a willingness to cooperate. The Executive Board of the AVMA concurred in the Research Council's recommendation with the suggestion that the panel serve initially as an independent panel of consultants.

In 1969 a contract was awarded the Virginia Mason Research Center in Seattle to conduct a series of experiments using CO_2 and N_2 gasses to dispatch fur seals. These tests provided some useful information, but it was evident that more refined techniques would be required and the Virginia Mason Research Center agreed to conduct additional tests in 1970.

During the 1970 season, carbon dioxide, nitrogen, succinylcholine, (a paralytic durg), and conventional stunning and bleeding were tested using twenty-six

3- and 4-year old males captured from the drives. Seals were instrumented to monitor electrocariogram, blood pressure, blood flow and amplitude of brain waves (electroencephalogram). Results of the tests were as follows:

Succinylcholine.—Three levels of succinylcholine, 20 mg/kg, 40 mg/kg, and 80 mg/kg, were tested. There was no difference in response associated with the three levels of drug administered. However, there were substantial differences in responses from seals surgically instrumented and used in diving experiments before they were injected with succinylcholine. Three seals receiving no pretreatment became permanently immobile about 5 minutes after injection and expired 13 to 14 minutes after injection. Time of death was determined by clinical signs of pupil dilation, heart beat, and electrocardiogram. Three seals subjected to anesthesia, surgery, and instrumentation before the experiment died 6½ to 9½ minutes after injection. Time of extinction was determined here by interpretation of the electroencephalogram.

Nitrogen and Carbon Dioxide Induced Hypoxia.—Ten seals were dispatched by subjecting them to hypoxic atmospheres of CO_2 or N_2 in a gas chamber. Death occurred at an average of 509 seconds (8.5 minutes) in seals subjected to CO_2, and 519 (8.7 minutes) for N_2. The onset of bradycardia (slowed heart beat) occurred much more rapidly in seals subjected to CO_2 than in seals subjected N_2. No physiological end points measured, except possibly bradycardia, appeared to be affected appreciably by diving tests performed before gassing.

Stunning and Bleeding.—Ten seals were dispatched by the conventional method of stunning and bleeding. In 7 of the 10 seals, the onset of slowed heart beat occurred 1 to 8 seconds after stunning. Zero blood flow and blood pressure occurred the instant the heart was opened with a knife, usually 1 to 2 minutes after the seal was struck.

For the methods tested in 1970, the following conclusions can be made concerning the time lapse between initial application and neurological death. Stunning and sticking resulted in the most rapid extinction. Contrary to what was expected from CO_2 tolerance tests on other seals, CO_2 appears to be as fast as nitrogen euthanasia. Succinylcholine took about as long to kill as high concentrations of CO_2 or N_2. All of the methods appeared, from clinical observations and human experience, to be preceded by some degree of alarm associated with herding or handling. All of the methods except stunning with a club, required a period of up to several minutes to achieve unconsciousness and insensitivity to pain.

MARINE MAMMAL RESOURCE PROGRAM—MARCH 1971

The estimated direct costs for implementation of the 1968 Task Force recommendations during the period 1968–1970 are as follows:

Improvement to rookery road system and killing fields to shorten drives	$88,700
Research on alternate methods of killings:	
Virginia Mason Research Center	16,500
Special supplies and equipment	1,800
Travel (task force and miscellaneous)	4,000
Labor—sealing crew (relief clubbers)	13,000
Total	124,000

THE SECRETARY OF COMMERCE,
Washington, D.C., September 24, 1971.

HON. JOHN D. DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in reply to your letter of September 2 concerning hearings on marine mammal legislation to be held by your committee.

You asked for any changes in policies or regulations of this Department affecting the operations of the National Marine Fisheries Service with regard to marine mammals, following the date of the reorganization plan which transferred the functions of that agency to the Department of Commerce. As you may recall we made the decision last April to terminate the taking of whales on the Endangered Species List by U.S. citizens. This termination will become effective December 31, 1971, to conform to the action of the Secretary of the Interior under the Endangered Species Act, whereby he terminated importation of endangered whale products after the end of the year. This in essence places the two Federal agencies in united action to protect those whales included as endangered which are the sei, finback, sperm, bowhead, blue, humpback, right, and gray whales.

Immediately after the formation of the National Oceanic and Atmospheric Administration I asked for a complete review of the Pribilof Islands seal program. This summer I visited the Islands to see the operations first hand and I have personally reviewed all pertinent aspects of the program.

Based on this a policy decision was made that further effort should be expanded on harvesting methods and a greater emphasis be placed on seeking alternatives. One result was the visit by six prominent veterinarians named by the American Veterinary Medical Association to the Pribilof Islands this summer to review the operations and make their recommendations. These recommendations have been received, and I have ordered full and immediate implementation of all of them. Funds have been allocated in FY 1972 and are expected to be allocated in FY 1973 for research on alternative harvesting methods at least as humane as those presently used and less esthetically displeasing. Private research and development organizations, as well as several humane organizations, have expressed interest in conducting contract studies.

If further information is needed we would be pleased to supply it.

Sincerely,

MAURICE H. STANS,
Secretary of Commerce.

Mr. PELLY. No questions, but I would like to state it is a great pleasure for us on the committee to have Mr. Pollock come back and represent the executive branch.

I think he is doing a very good job.

Mr. POLLOCK. Thank you very much. I appreciate the kind words of the distinguished Congressman from the State of Washington.

Mr. DINGELL. I would like to echo those remarks.

I will indicate that I think it is the intention of this committee to have observers and perhaps members there and I expect to have a rather rigorous scrutiny of the representatives when they are here.

Mr. Rogers?

Mr. ROGERS. Thank you, Mr. Chairman.

I want to join in welcoming my colleague back. He is doing a great job and I have much confidence in him.

Mr. Pollock, this testimony is helpful and I am sure the committee will follow the recomendations and your suggestions very carefully in trying to fashion some legiselation.

Mr. DINGELL. Mr. Anderson?

Mr. ANDERSON. Thank you, Mr. Chairman. I, too, want to commend Mr. Pollock for a very fine presentation and want to thank you for your comments and suggestions on H.R. 10420. I was listening to your remarks relative to the tuna fishermen. In connection with H.R. 10420 in the southern California area I have talked to many tuna fishermen and they are all giving the view that the porpoises are their friends and they want to do everything they can to protect them.

Is this, in your mind, a general feeling of most tuna fishermen or is this a story they give me because of my interest in tuna fishing?

Mr. POLLOCK. Congressman Anderson, I think this certainly is a correct statement. I had occasion to talk to a number of people in the industry, fishermen, and I think that someone, some individual who might go out and intentionally want to harm one of the porpoises, if he was abroad one of those vessels I think he would be taking his own life in his hands. I think he would be dealt with very harshly and may very well be thrown overboard.

I think the tuna fishermen know this is their livelihood and they have a very warm and very affectionate feeling for the porpoises.

I think they will continually be in the forefront trying to do what is possible to alleviate the problem we have of inadvertently catching porpoises actually when they are fishing for yellowfish tuna.

Mr. ANDERSON. When you mentioned this attitude on the part of tuna fishermen to people who are critical of that exception in the bill they laugh and sort of snicker and say we are being taken in by this, that many of them do not care.

Your feeling is generally across the board most tuna fishermen do want to protect the porpoises?

Mr. POLLOCK. Yes. I think the only area, of course, when you talk about tuna fishermen you may be talking about skipjack tuna and other kinds of fishermen, but where the problem arises in the taking of yellowfish tuna, these people depend upon the porpoise for their survival and I think you have heard many times their expression of very deep affection for the porpoise.

Aside from that, if that did not exist, they depend upon the porpoises for their livelihood and it would be folly to try to destroy them.

Mr. ANDERSON. You have used a figure of 350,000 or whatever figure you gave us——

Mr. POLLOCK. I said 250,000.

Mr. ANDERSON. We have a figure of 250,000 we have heard of. How big is that in comparison to the total porpoise population? How big is that? Do we have an estimate on their population?

Mr. POLLOCK. I am not sure we know what the total is.

Mr. ANDERSON. 250,000 sounds terribly large to most people.

Mr. POLLOCK. We do not know what the total population is.

Mr. ANDERSON. Is it up in the millions?

Mr. POLLOCK It would be quite a high figure I would assume.

Incidentially, this is one of the areas, among many others, where we have to do far more research than we are doing now.

Mr. ANDERSON. Now another area I know you mention on page 3, you say in activities of seal hunters of other countries, no baby seals are taken on the Pribilof Islands.

Mr. POLLOCK. That is correct.

Mr. ANDERSON. Where are they taken? The people we talk to say do you not want to protect the baby seals.

Where are they being taken?

Mr. POLLOCK. In the Gulf of St. Lawrence and in Labrador I understand, and are taken by Canadians, not by U.S. citizens.

Mr. ANDERSON. Is this something we tried to work out with them?

Mr. POLLOCK. Yes.

Mr. ANDERSON. Any success?

Mr. POLLOCK. Well, it is obviously still going on but I think they are very conscious of it. The public in Canada is also very conscious of it. I think there is progress. We would hope this would stop.

Mr. Terry tells me that the whitecoats, which are the baby seals, have been prohibited, or the making of coats from the white furs (the white sealskin), in Canada is now prohibited.

Mr. ANDERSON. The pictures I have been in the papers and so on show these baby seals being slaughtered. In my area that does not set to well.

The average person, including myself, have felt these were the Pribilof seals.

Mr. POLLOCK. They are not the Pribilof seals and we at no time take the babies.

Mr. ANDERSON. I notice you say the skinning of live seals is never done in the Pribilofs.

Is this being done anywhere, Mr. Pollock?

Mr. POLLOCK. I am not aware of it. We have heard these criticisms made by a few individuals and we do not do that.

Mr. ANDERSON. They are the only questions I have, Mr. Chairman.

Mr. DINGELL. Mr. Potter?

Mr. POTTER. Thank you, Mr. Chairman.

Mr. Pollock, under what authority does the Department of Commerce presently regulate whaling?

Mr. POLLOCK. It is under the 1956 act, as amended, by Reorganization Plan No. 4 of 1970.

Mr. POTTER. What species of whales do you feel you have authority to regulate?

Mr. POLLOCK. We have the Whaling Convention Act of 1949 that we formerly had, the Bureau of Commercial Fisheries had in the Department of Interior before it was transferred.

Mr. POTTER. What species of whale do you consider that you have authority to regulate?

Mr. POLLOCK. Well, we feel that we have authority over all the whales and we feel that this includes the porpoise and the dolphin, not the fish dolphin, but also seals and sea lions.

Mr. POTTER. As to the seals or the sea lions you get that authority from the Seal Act, I presume.

Mr. POLLOCK. The Fish and Wildlife Act of 1956; fur seals are under the Fur Seal Act of 1966.

Mr. POTTER. What is your 1972 fiscal year budget for research?

Mr. POLLOCK. Did you say the 1970?

Mr. POTTER. The 1972 budget, the current fiscal year.

Mr. POLLOCK. May I provide it for the record? I do not think I have it.

Mr. POTTER. My impression is that it is in the order of about $65,000.

Mr. POLLOCK. That is very close. It is a little less than $65,000. That is for whales only.

Mr. DINGELL. If you please, and if counsel would yield at this point, would you furnish it?

Mr. POLLOCK. Excuse me, Mr. Chairman. I am advised there is another $50,000 for porpoises.

Mr. DINGELL. Would you please give us a statement of your research programs on mammals under your jurisdiction for the past 5 years, together with the research programs that you have engaged in?

You do not need to do it now, but will you furnish it for purposes of the record?

(The information follows:)

NATIONAL MARINE FISHERIES SERVICE—MARINE MAMMAL FUNDING FOR FISCAL YEARS 1968 THROUGH 1972

	Fur seal	Whale	Porpoise
Fiscal year:			
1972	$292,000	$64,000	$65,000
1971	292,000	64,000	45,000
1970	265,000	64,000	40,000
1969	268,000	71,000	
1968	263,000	66,000	

September 27, 1971.

Brief Description of NMFS Fur Seal Research for Fiscal Years 1968 Through Fiscal Year 1972

Fiscal year 1968, $263,000

Conducted study on population dynamics of fur seals in the Pribilof Islands which included estimates of pups born and of the mortality rate through ages one, two, three and four.

Studied nutritional requirements of pups

Continued development of freeze branding as a technique for marking fur seals.

Conducted pelagic investigations for information on pregnancy rate, the intermingling of fur seal stocks, and conducted food studies.

Make a cooperative study with Canada in the area of Washington and British Columbia to increase the intensity of pelagic studies in these areas.

Supported a U.S. observer abroad Japanese pelagic research vessel.

Fiscal year 1969, $268,000

Continued a study on population dynamics in Pribilof Islands.

Continued pelagic investigation on pregnancy rate, the intermingling of fur seal stocks, and conducted food studies.

Continued development of freeze branding as marking techniques.

Continued cooperative pelagic studies with Canada in waters off Washington and British Columbia.

Conducted a task force experiment on alternative methods for killing fur seals.

Conducted studies preliminary to research on the physiology of death.

Conducted experimtntal radio tagging of fur seals.

Made estimates of age composition and mortality rate of adult males.

Observed USSR research on Commander Island.

Fiscal year 1970, $265,000

Continued a study on population dynamics in Pribilof Islands.

Continued pelagic investigation on pregnancy rate, the intermingling of fur seal stocks, and conducted food studies.

Continued development of freeze branding as marking techniques.

Continued cooperative pelagic studies with Canada in waters off Washington and British Columbia.

Conducted studies preliminary to research on the physiology of death.

Conducted experimental radio tagging of fur seals.

Fiscal year 1971, $292,000

Continued a study on population dynamics in Pribilof Islands.

Continued pelagic investigation on pregnancy rate, the intermingling of fur seal stocks, and conducted food studies.

Continued development of freeze branding as marking techniques.

Continued cooperative pelagic studies with Canada in waters off Washington and British Columbia.

Conducted studies preliminary to research on the physiology of death.

Conducted experimental radio tagging of fur seals.

Initiated monitoring programs for contaminants in marine mammals.

Fiscal year 1972, $292,000

Continued a study on population dynamics in Pribilof Islands.

Continutd pelagic investigation on pregnancy rate, the intermingling of fur seal stocks, and conducted food studies.

Continued development of freeze branding as marking techniques.

Continued cooperative pelagic studies with Canada in waters off Washington and British Columbia.

Conducted studies preliminary to research on the physiology of death.

Conducted experimental radio tagging of fur seals.

Initiated monitoring programs for contaminants in marine mammals.

Supported panel study by members of American Veterinary Association on euthanasia of fur seals.

BRIEF DESCRIPTION OF NMFS WHALE RESEARCH FOR FISCAL YEAR 1968 THROUGH 1972

Fiscal year 1968–1969, $137,000

Conducted studies on techniques for marking whales. Performed research on the biology of the grey, sperm, fin and sei whales.

Fiscal year 1970, $64,000

Conducted studies on techniques for marking whales. Performed research on the biology of the grey, sperm, fin and sei whale.

Initiated the development of transducers for counting grey whales and the development of tags for use on small whales.

Fiscal year 1971, $64,000

Conducted studies on techniques for marking whales. Performed research on the biology of the grey, sperm, fin and sie whales.

Initiated the development of transducers for counting grey whales and the development of tags for use on small whales.

Published monography on grey whales.

Fiscal year 1972, $64,000

Continued development of counting grey whales by transducers.

Completed analysis of biological data on the sperm, fin and sie whales, taken at the San Francisco whaling station.

Continued development of tagging techniques for small whales.

BRIEF DESCRIPTION OF NMFS PORPOISE RESEARCH FOR FISCAL YEAR 1970 THROUGH 1972

Fiscal year 1970, $30,000

Developed net escape techniques. Conducted porpoise behavior studies in Hawaii. Conducted tests with underwater sounds. Completed trials with tuna purse seine modifications.

Fiscal year 1971, $45,000

Developed porpoise gates in tuna purse seine. Conducted at sea collections of porpoise mortality data. Conducted porpoise population studies.

Fiscal year 1972, $65,000

Expanded the at sea data collections. Continued work on population studies and chartered special vessels to test porpoise escape gates in a tuna purse seine.

Mr. DINGELL. Also submit to us an estimate of the cost of the administering of H.R. 10420 and the other bills before this committee for the next 5 years as required by this committee under the recent congressional reform legislation.

Mr. POLLOCK. Yes, sir. When we get into the area of research, we would have to perhaps outline two, three, or four programs of research because it would depend upon the number of dollars and the kind of job we did.

Mr. DINGELL. I am aware of that, and I understand the difficulties that this presupposes.

When you furnish that; also give us a statement of what you regard as a good research program in terms of management and protection of the different species entrusted to the jurisdiction of the Department of Commerce.

You can submit this again for the record, and I am asking this as a drafting service for the committee, and I am expressly instructing you it is not to be cleared through the Bureau of the Budget.

Mr. POLLOCK. I did not understand your last few words.

Mr. DINGELL. I said I am expressly requesting this as a drafting service, and it is not to be cleared through the Bureau of the Budget in any fashion whatsoever.

Mr. POLLOCK. I understand you, Mr. Chairman.
(The information follows:)

FIVE-YEAR COST ESTIMATES UNDER THE PROPOSED DEPARTMENT OF COMMERCE REVISION OF H.R. 10420

The objective of the marine mammal research program is to gain sufficient knowledge so that intelligent decisions may be made about the conservation and use of marine mammals.

The current marine mammal research program of the National Marine Fisheries Service is directed toward obligations of the United States to the Convention for the Conservation of North Pacific Fur Seals, to the International Whaling Commission, and to solving the problem of releasing porpoises from tuna purse seines. The fiscal year 1972 budget for these programs is $394,000. The development of a more extensive research program on marine mammals would require the collection and analysis of additional information. Annual costs of such a research program could initially range from $394,000 with redirection of current programs, to as high as the $1–$2.5 million level, depending on results.

Management and enforcement activities might involve some increased staffing for the National Marine Fisheries Service in the field. The estimated costs of the expanded operation would be between $100,000 and $200,000 per year.

MARINE MAMMAL RESEARCH

Marine mammals are divided among the following groups: Carnivora (sea otter), Pinnipedia (seals, sea lions, and walruses), Sirenia (dugong and manatees), Mysticeti (baleen whales), and Odontoceti (toothed whales, dolphins, and porpoises). A few other species, such as the polar bear and Cape Horn otter, spend much time in the marine environment and could be classified as marine mammals.

Information should be developed for all marine mammals sufficient to answer the basic questions regarding their biology, abundance, and their ecological relationships to each other and to other living resources of the sea.

With the exception of the northern fur seal and some of the large whales, little information is available on which to base effective marine mammal conservation programs. In fact, there is so little information on the abundance of species commonly seen by the public, such as the harbor seal, northern sea lion, and killer whale, that it is not possible to say whether their numbers are increasing or decreasing. Even less information is available for small cetaceans.

We must obtain as much information as possible to insure preservation of marine mammals. A few species are so rare that only observational information should be gathered. One species: the Caribbean monk seal, may now be extinct. Its status should be established, and if this seal still exists, special protective efforts should be taken.

The development of a basic marine mammals research program will require the close cooperation of an international level of scientists from the government, academic and private community. A significant barrier to such a program at the current time is the shortage of highly qualified scientists capable of assisting in the studies. It may be anticipated, however, as the program evolves, an increasing capability will be developed and the manpower shortage will be overcome. A further barrier to progress is the requirement for international cooperation in regard to the marine mammals whose life history involves extensive migrations in international waters. It may also be anticipated, however, that appropriate agreements will eventually be developed.

As a result of the above limitations it is essential to establish immediate research priorities and gradually expand the studies as money, manpower and the necessary international agreements are attained.

Highest priority for study should be given to those species:

a. Threatened by commercial exploitation either by intentional fishing or inadvertent capture in the pursuit of other species.

b. Affected by contaminants, loss of habitat or food supply.

Species falling into the first category would include virtually all species of large whales and the tropical porpoises which are currently being captured in the yellowfin tuna fishery.

The second category would include studies of California sea lions—there has been almost no survival of pups in recent years while tissue samples from adult females reveal pesticide residues two to eight times higher in those with aborted pups compared to those with normal births. The Alaska fur seal whose populations may be adversely affected by the increasing fishery for Alaska herring, a natural food for the seal, would also be included in this category.

In both categories of research it is essential that detailed life history studies, including behavioral and physiological work be conducted. Additionally the population dynamics of the species must be worked out, particularly for those subject to commercial exploitation.

Important research needs of slightly lower priority are concerned with the rarer marine mammals. Knowledge of the distribution, range, numbers and biology of rare marine mammals is essential to their survival and is a national problem of public concern. These species include the Hawaiian monk seal, Florida manatee, ribbon seal, Guadalupe fur seal, the Caribbean monk seal, some of the whales, and in local areas gray and harbor seals.

Killer whales and bottle nose dolphins are increasingly sought for marine exhibition (Marineland, Seaquarium, etc.), and their abundance and biology must be determined to make rational conservation decisions.

PROGRAM IMPLEMENTATION

A comprehensive research program could be implemented by NOAA in priority increments during the next 5 years at a cost of up to 12.5 million dollars (compared to $2,250,000 as a 5-year projection at the current level of NOAA annual expenditure) to pursue critical studies. The proposed program is shown in Table I.

TABLE I.—NOAA MARINE MAMMAL RESEARCH PROGRAM, SUGGESTED FUNDING

[In thousands of dollars]

Program	From—	To—
Life histories of marine mammals:		
Project:		
Biology of pinnipeds, the Florida manatee, and the sea otter	121	400
Biology of cetaceans	168	500
Environmental quality	104	312
Population dynamics of marine mammals:		
Project:		
Population studies of pinnipeds and sea otters	125	242
Population studies of cetaceans	50	150
Physiology and medicine of marine mammals:		
Project: Clinical studies of captive fur seals	122	350
Fur seal research	321	389
Total	1,011	2,343

Note: The above estimates represent simple projections of cost expressed in constant dollars at prices existing at the time the estimates are prepared. They are not intended to predict future economic conditions, and do not reflect possible changes in the scope or quality of the proposal which might result from experience gained in actual practice. Further, the resources which might appropriately be applied in later years will require a reexamination of the relative priorities of this and other Government programs, in the light of economic and other circumstances then prevailing. Thus, the estimates do not represent a commitment as to amounts to be included in future budgets.

Mr. POTTER. Can you tell me, Mr. Pollock, whether any permits have been issued by the Department of Commerce for the taking of whales since the Department of Commerce acquired jurisdiction over whales?

Mr. POLLOCK. Yes, sir; I would like to respond to complete the record concerning the questions that were asked of Ambassador McKernan.

The one point I wanted to make was that originally the Secretary of Commerce proposed to stop the issuance of any new commercial licenses for the taking of whales that were on the endangered species list effective immediately. However, the Department of the Interior issued hardship exemptions that allowed companies to continue importing whale products for 1 year (until December 2, 1971).

We were then faced with the anomalous position of saying our one remaining company that was in the business could not take any whales this year, but other companies could import whale products into this country.

As a consequence, the Secretary then modified the proposal, after a public hearing which disclosed hardship, and issued a license for this year only. It will go out at the end of this year; and under the regulation, after this year, no more licenses will be issued to take any whales that are on the endangered species list.

Mr. Potter. So as of December 2, 1971, it all stops.

Mr. Pollock. That is correct. Mr. Terry tells me that the Department has issued special scientific permits.

Would you explain that to the committee, Mr. Terry?

Mr. Terry. Under the authority of the Whaling Convention, governments may permit the taking of whales on the prohibited list for scientific or educational purposes.

We do each year issue a number of permit for whales to be taken either for research or for education or for public display.

We have issued a few permits, perhaps as many as a half dozen.

Mr. Dingell. Are you talking about live trapping or actual killing of the whales?

Mr. Terry. In most cases, live trapping for use in places like Marineland or for research done on the animal in a tank.

In some cases, it is merely for using electronic devices to measure the heartbeat of the whale.

In each case, we require a report of the findings, and this is made available.

Mr. Potter. I have here a report, which I obtained from the National Marine Fisheries Service, entitled "Index of Whaling Scientific Permits," from 1968 through 1970. With the Chair's permission, I ask that it be included in the record at this point.

Mr. Dingell. Without objection, so ordered.

(The publication referred to follows:)

INDEX OF WHALING SCIENTIFIC PERMITS

Year and permit No.	Issued to	Date of permit	Number and species
1968:			
1968–1	John Schultz	Jan. 22, 1968	Gray—Capture 2, tag 1.
1968–3	John Prescott, Marineland of Pacific	April 9, 1968	2 minke.
1968–4	Rockefeller University (Dr. Payne)	May 7, 1968	Tag humpback whales.
1969 (returned—whale died):			
1969–2	John Prescott, Marineland of Pacific	Jan. 21, 1969	1 Gray.
1969–3	do	Feb. 12, 1969	2 minke.
1969–4	John Schultz	Mar. 6, 1969	Tag 1 Gray whale.
1969–6	Rockefeller University (Dr. Payne)	Apr. 25, 1969	Tag humpback whales.
1970:			
1970–2	Marine World	Feb. 12, 1970	3 sperm.
1970–3	Dr. Kenneth S. Norris	Apr. 10, 1970	4 sperm, 2 humpback, maintain alive.
1970–4	Dr. Roger S. Payne	Apr. 29, 1970	Attach acoustic beacons to humpback whale.

Mr. Potter. Let me show this to you. It looks to be a little out of date.

The Bureau of Commercial Fisheries at one time issued a scientific permit to the Marine Mammal Biology Laboratory.

Is that pratice still in force?

Mr. Terry. We have no permit issued currently.

We have now a proposal from the laboratory under review for the taking of some whales for scientific purposes.

Mr. POTTER. How many?

Mr. TERRY. I do not recall.

Mr. POTTER. Would you supply that information for the record?

Mr. TERRY. Yes; I think, perhaps, Dr. Perrin can answer that, but we will supply it.

Mr. DINGELL. Without objection, so ordered.

(Information to be supplied follows:)

Proposal for a Scientific Permit To Take Sperm Whales

The Marine Mammal Biological Laboratory of the National Marine Fisheries Service has submitted a research proposal to take 30 sperm whales.

This proposed collecting program is in support of specific research recommendations that arose from the International Whaling Commission's (IWC) Special Meeting on Sperm Whale Biology and Stock Assessments held in Honolulu in March 1970.

The specific purposes of this proposed sampling program are to obtain better data on (1) age at sexual maturity; (2) duration of the lactation period; and (3) rate of accumulation of growth layers in the teeth of immature whales.

This proposal is presently being evaluated by the National Marine Fisheries Service.

WHALING SCIENTIFIC PERMITS

The International Convention for the Regulation of Whaling authorizes contracting governments to grant special scientific permits to take whales for scientific research. The Division of Resource Management of the BCF has been delegated by the Director to review and recommend action on requests received for such permits.

The Marine Mammal Biological Laboratory, BCF, which carries out the research activities recommended by the Scientific Committee of the International Whaling Commission is required to obtain a permit. The permits are issued for a variety of purposes, but the primary need is for the taking of undersize gray and sperm whales to obtain more precise information on the reproductive biology and population dynamics.

All permits are issued for only one-year duration. Permits issued to Ford Wilke, Director, Marine Mammal Biological Laboratory since 1964 are listed below:

Year	Number requested	Species
1964	20	Gray whales.
1965	50	Sperm whales.
	5	Minke whales.
1966	50	Sperm whales (22 taken).
	60	Gray whales.
1967	50	Sperm whales (50 taken).
	100	Gray whales.
1968	100	Sperm whales (53 taken).
	100	Gray whales.
1969	100	Sperm whales (34 taken).
	100	Gray whales.
1970	100	Sperm whales.

The whales are collected by the Del Monte Fishing Company of Richmond, California. After the scientific information has been obtained the whales are then processed by that company.

Other permits are issued to non-Federal scientists to carry out experiments on a limited basis. These are summarized below:

Mr. DINGELL. I note the figures here, according to the information we have is that in 1968 permits requested were for 100 sperm whales and 100 gray whales.

The information we have is that 53 sperm whales were taken.

We notice in 1969 that permits for 100 sperm whales and 100 gray whales were issued. Thirty-four sperm whales were taken.

I note in 1970 that this organization sought permits for 100 sperm whales.

We have no information as to the number of sperm whales that were taken, but I would like to ask you what has happened to these whales after they were taken and what will happen with regard to the permits requested.

In other words, if I were to dispose of 53 whales I would have to think very hard on some way to get rid of them.

Mr. POLLOCK. I will again ask Mr. Terry to respond.

Mr. TERRY. Mr. Chairman, the permits were issued, you understand, and the laboratory we are speaking of is a laboratory of the National Marine Fisheries Service when we were the Bureau of Commercial Fisheries and it was our laboratory.

Mr. DINGELL. I am curious to know what happened to the whales that were taken.

Mr. TERRY. The carcasses of the whales, you will recall at that time there was a fairly substantial whaling industry, and the carcasses were used by the whaling company after we had finished research we wanted to do.

Mr. DINGELL. What research was done?

Mr. TERRY. I perhaps should ask Dr. Harry to respond in detail.

Mr. POLLOCK. That might be more appropriate.

Might we have Dr. George Harry, who is the Director of the Marine Mammal Biology Laboratory in Seattle, respond?

Mr. DINGELL. I am curious. The sperm whale is regarded as an endangered species and I find myself curious as to why you had to kill in the instance 53 and then 34 and, of course, what was the research you were engaged in to cause the killing of this number of whales?

Dr. HARRY. This was recommended by the Sperm Whale Committee of the International Whaling Commission.

At that time the whales were not on the endangered species list.

Mr. DINGELL. When did they go on the endangered species list? Can you refresh my recollection?

Mr. POLLOCK. 1970.

Mr. DINGELL. December 1970, is that the date?

Mr. POLLOCK. December 2, 1970.

Mr. DINGELL. I remember there was a discussion.

Dr. HARRY. The only way that such information as to the size at maturity, age at maturity, pregnancy rate, general life history data, gestation period, all of this type of life history, and biological data can be obtained is from taking the whales themselves.

This cannot be obtained by observation in any way. The whales have to be taken, measured, examined, and this is the only way it can be done.

This is basic life history data that are essential to control and conserve whales or any mammal.

Mr. DINGELL. Were these random takings or selected animals? What was the way these decisions were made?

Dr. HARRY. I believe there was a selection for undersized whales and special selections to get data that would not be obtained from the ordinary whaling operation.

Mr. PELLY. Could I ask a question? How do you take those whales, by nets?

Dr. HARRY. No; these are taken by the regular whaling harpooning operation.

Mr. PELLY. In other words, it is not like the killer whales that we capture?

Dr. HARRY. The killer whales, that is a better situation. There we can capture them in nets as you know, in Puget Sound.

Mr. PELLY. Is there a high mortality?

Dr. HARRY. No, on the killer whales, the last just taken, there was no mortality on them at all. Last year, in a similar pod, two died. They have this down to a very smooth operation and do very well at it now. This year, there was no mortality.

Mr. POLLOCK. The killer whale is not on the endangered species list.

Dr. HARRY. No.

Mr. DINGELL. I am curious. You have a situation where a very goodly number of whales were taken under this application.

I am curious what information you derived from this taking of these whales.

Dr. HARRY. Knowledge, and size at maturity. This is very important in setting regulations.

Mr. DINGELL. Have any studies or reports or publications been made on the research that was done with regard to the whales taken in 1968, 1969, and 1970?

Dr. HARRY. These reports are made for the International Whaling Commission.

All whales taken for scientific purposes have to be reported to the International Whaling Commission, and the information is inserted into the reports.

Mr. DINGELL. I would assume that the reports or copies of the reports are still in the files of the service; am I correct?

Dr. HARRY. Yes.

Mr. DINGELL. Would you submit them to us so they can be reviewed by our staff to see just what you folks find out in connection with this, if you please?

Mr. POLLOCK. Be happy to do that.

(The information follows:)

SCIENTIFIC PERMITS TO TAKE WHALES ISSUED TO THE MARINE MAMMAL BIOLOGICAL LABORATORY OF THE BUREAU OF COMMERCIAL FISHERIES (NATIONAL MARINE FISHERIES SERVICE)

Several Special Scientific Permits to take gray whales and sperm whales were issued to the Director of the Marine Mammal Biological Laboratory of the Bureau of Commercial Fisheries (now National Marine Fisheries Service). Following is a summary of the reasons for issuing these permits, the number of whales taken, the data gathered, and the results of the studies.

GRAY WHALES

Justification

Gray whales (*Eschrichtius robustus*) are found only in the North Pacific Ocean. There are two separate stocks of gray whales. The California stock spends the summer in the shallow waters of the Bering and Chukchi seas, and spends the winter along the west coast of Mexico, where the females bear their calves in certain protected lagoons. The Korean stock spends the summer in the northern part of the Okhotsk Sea, and spends the winter along the coast of South Korea.

Gray whales were nearly exterminated by unrestricted whaling during the last half of the 19th century and the early 20th century. The 1946 International Convention for the Regulation of Whaling granted the gray whale complete protection from commercial whaling, although aborigines may take gray whales for their own use. Under this protection, the California stock has increased to an estimated 10 or 11 thousand animals. According to annual counts of the southward migrating whales conducted each winter by the National Marine Fisheries Service, this population has remained stable since 1967/1968. There are no recent data on the Korean stock, and it may be extinct.

During the past decade, whaling interests in both the United States and Mexico have expressed the opinion that commercial harvesting of gray whales should be permitted. At that time, there was very little knowledge of many important aspects of the biology of the gray whale. This dearth of biological data would have handicapped any efforts at rational regulation if the International Whaling Commission should permit a resumption of commercial exploitation. Therefore, the Bureau of Commercial Fisheries (now the National Marine Fisheries Service) initiated a research program that include collecting small series of gray whales under Special Scientific Permits. The Scientific Committee of the International Whaling Commission reviewed our work each year. At its June 1966 meeting, the Scientific Committee recommended "that the taking of gray whales under special permit for scientific purposes be encouraged" (17th Report of the Commission, page 79). Beginning in 1966, we increased the number of gray whales taken annually under Special Scientific Permits.

Number Taken

Since 1959, biologists of the National Marine Fisheries Service have examined 316 gray whales taken under Special Scientific Permits. Two were taken in 1959 under a permit issued to Dr. Frank Nolan of Los Angeles. The remaining 314 were taken under permits issued to the Director of the Marine Mammal Biological Laboratory (Table 1).

TABLE 1.—SPECIAL SCIENTIFIC PERMITS TO CAPTURE GRAY WHALES ISSUED TO BCF/NMFS MARINE MAMMAL BIOLOGICAL LABORATORY

Season	Permit No.	Number of whales requested	Number of whales taken
1961-62	1962-1	20	4
1963-64	1964-1	20	20
1965-66	1966-2	[1] 60	[1] 26
1966-67	1967-1	[1] 100	[1] 125
1967-68	1968-1	100	66
1968-69	1969-1	100	73
Total			314

[1] Whales collected during the 1966-67 season were taken under both permit No. 1966-2 and 1967-1

Data Collected

All of the whales collected were examined by biologists of the Marine Mammal Biological Laboratory. The following data and specimens were routinely

1. Body measurements.

gathered:

2. Ectoparasites (species, number, and pathological effects).
3. Blubber thickness.
4. Condition of mammary glands.
5. Ovaries (weight; size of graafian follicles; size and number of corpora albicantia).
6. Uterus (histological condition).
7. Fetus (sex and body measurements).
8. Testes (weight and histological condition).
9. Penis (length).
10. Stomach contents (species and quantity).
11. Endoparasites (species, number, and pathological effects).
12. Vertebral epiphyses (degree of fusion to determine physical maturity).
13. Ear plug (for age determination).
14. Baleen plates (for age determination).

In addition to the studies conducted by the NMFS biologists, many collaborators from other institutions gathered data and specimens for specialized studies on various aspects of anatomy and physiology. A partial list of these collaborators follows:

Name, Institute, and Subject:

Dr. George Pilleri, Brain Anatomy Institute, Berne, Switzerland, Brain anatomy.

Mr. Yuk Lenng, University of Southern California, Los Angeles, California, Cyamid parasites.

Dr. Claude Lenfant, University of Washington, Seattle, Washington, Blood chemistry.

Dr. Robert L. Rausch, Arctic Health Research Center College, Alaska, Tapeworm parasites.

Mr. Kenneth M. Neiland, Alaska Department of Fish and Game, Anchorage, Alaska, Trematode and acanthocephalan parasites.

Mr. John T. Davey, Commonwealth Bureau of Helminthology, St. Albans, England, Roundworm parasites.

Dr. Merrill P. Spencer, Virginia Mason Research Center, Seattle, Washington, Histology.

Dr. Earl L. Bousefield, National Museum of Canada, Ottawa, Canada, Indentification of amphipods from stomach.

Dr. Francis H. Fay, Arctic Health Research Center College, Alaska, Karyotypes.

Mr. Toshio Kasuya, Ocean Research Institute, Tokyo, Japan, anatomy and osteology.

Dr. Ray C. Truex, Hahneman Medical School, Philadelphia, Pennsylvania, heart anatomy.

Dr. Daniel F. Cowan, Michigan State University, East Lansing, Michigan, Pathology.

Dr. Floyd Durham, University of Southern California, Los Angeles, California, anatomy.

Dr. John Sinclair, University of Texas Medical School, Galveston, Texas, Embryology.

Dr. G. Victor Morejohn, San Jose State College, San Jose, California, functional anatomy.

Dr. Richard Lyons, University of Oregon Medical School, Portland, Oregon, heart anatomy.

Dr. Julio Ludowieg, University of California Medical Center, San Francisco, California, intervertebral disks.

Dr. Luther Meyer, Piedmont, California, Intestinal protozoa.

Mr. Robert Brownell, Little Company of Mary Hospital, Torrance, California, atherosclerosis.

Dr. William McFarland, Cornell University, Ithaca, New York, visual pigments of the eye.

Dr. J. C. Daniels, Jr., University of Colorado, Boulder, Colorado, Biochemistry of uterine fluid.

Dr. John W. Blake, Battelle Memorial Institute, Duxbury, Massachusetts, Biochemistry of liver and duodenum.

Dr. Frederick Crescitelli, University of California, Los Angeles, California, visual pigments of the eye.

Dr. Frank R. N. Curd, Indiana University, Bloomington, Indiana, biochemistry of myoglobin.

Dr. Andrew F. Hegyeli, Battelle Memorial Institute, Columbus, Ohio, anticancer substances in the liver.

Dr. H. M. S. Watkins, Naval Biological Laboratory, Oakland, California, viruses.

Dr. John E. Simmons, University of California, Berkeley, California, Parasites.

Dr. Einar Leifson, Loyola University, Hines, Illinois, Intestinal bacteria.

Dr. Margaret Y. Martinez, West Chester State College, West Chester, Pennsylvania, histology.

Mr. Alfred J. Wilson, Bureau of Commercial Fisheries, Gulf Breeze, Florida, pesticide residues,

Mrs. Joyce Roderick, Moss Landing Marine Station, Moss Landing, California, anatomy of flippers.

Dr. Helen C. Rauch, Stanford University, Stanford, California, spinal cord and dorsal root ganglia.

Mr. Frank Maurer, Cornell University, Ithaca, New York. Blood proteins.

Dr. Richard B. Holtzman, Argonne National Laboratory, Argonne, Illinois, radionuclide residues.

Dr. Arnold Ross, San Diego Natural History Museum, San Diego, California, parasitic barnacles.
Dr. Philip Schwartz, Warren State Hospital, Warren, Pennsylvania, senile changes.
Mr. Robert C. Boice, Little Company of Mary Hospital, Torrance, California chemistry of blood and urine.

Results

At the termination of each Special Scientific Permit, a preliminary report listing the sex, length, and locations and dates of capture of each whale was submitted to the Secretary of the International Whaling Commission.

Interim reports on the biological results of the studies were submitted to the Scientific Committee of the International Whaling Commission in 1964, 1967, and 1969.

The final results of our studies were published in April 1971: Rice, D. W., and A. A. Wolman, 1971. The life history and ecology of the gray whale (*Eschrichtius robustus*). American Society of Mammalogists, Special Publication No. 3. 142 pages.

The data obtained from the gray whales collected under the Special Scientific Permits, along with our annual counts of the migrating whales, provide the International Whaling Commission with information on the population size and trends, and also provide a basis for setting rational catch limits if the International Whaling Commission should decide that commercial exploitation of gray whales should be resumed.

SPERM WHALES

Justification

Following the depletion of baleen whale stocks since World War II, the whaling industry has turned its attention more and more to sperm whales (*Physeter catodon*). Sperm whales are now the most important species to the industry. In recent years the annual catch has been around 24,000, of which about 15,000 come from the North Pacific.

Assessment of the sustainable yield of sperm whale stocks is much more difficult than that of baleen whale stocks because of several unique features of sperm whale biology:

(1) Males may attain a body length of 55 or 60 feet, whereas females seldom grow longer than 38 feet.

(2) Sperm whales are polygamous, and 1 to 3 older adult males join the schools of females during the breeding season, whereas the younger adult males may form "bachelor" schools.

(3) Many male sperm whales migrate to high latitudes during the summer months, whereas the females and immature animals remain in temperate or tropical waters.

Because of the legal minimum length limit of 38 feet for floating factory ships, and 35 feet for shore stations, commercial catches of sperm whales are comprised of about 75 percent males; only a few of the older females are taken. As a result it appears that, at least in some areas such as the North Pacific, the catch of males exceeds the sustainable yield, while the catch of females is less than the sustainable yield.

TABLE 2.—SPECIAL SCIENTIFIC PERMITS TO CAPTURE SPERM WHALES ISSUED TO BCF/NMFS MARINE MAMMAL BIOLOGICAL LABORATORY

	Permit No.	Number of whales requested	Number of whales taken
Season:			
1964	1964–3	(1)	0
1965	1965–1	50	0
1966	1966–1	50	22
1967	1967–3	100	50
1968	1968–2	100	53
1969	1969–5	100	34
1970	1970–2	100	30
Total			189

[1] 1 school.

In order to gain sufficient knowledge of the biology of the sperm whale to make estimates of the sustainable yield of each sex, it is necessary to collect sample of females and younger males that are shorter than legal minimum length limits. To obtain these samples, Special Scientific Permits were issued annually, beginning in 1964, to the Director of the Marine Mammal Biological Laboratory. Large series of sperm whales have also been collected under Special Scientific Permits by Government whale research organizations in other countries. The report of the 1970 Special Meeting on Sperm Whale Biology and Stock Assessments of the Scientific Committee of the International Whaling Commission recommended that more undersized sperm whales be collected under Special Scientific Permits to elucidate several poorly-understood aspects of their biology (21st Report of the Commission, page 47).

Number Taken

Since 1966, 189 sperm whales have been collected under Special Scientific Permits issued to the Marine Mammal Biological Laboratory (Table 2). These included animals shorter than the legal minimum length, lactating females, and animals taken before the start or after the finish of the legal 8-month open season.

Data Collected

All execept four[1] of the 189 sperm whales collected under Special Scientific Permits, as well as the majority (452) of those taken under regular commercial operations, were examined by biologists of the Marine Mammal Biological Laboratory. The following data and specimens were routinely gathered:

(1) Body length.
(2) Teeth (for age determination).
(3) Ectoparasites (species, number, and pathological effects).
(4) Blubber thickness.
(5) Condition of mammary glands.
(6) Ovaries (weight; size of Graafian follicies; size and number of corpora albicantia).
(7) Uterus (histological condition).
(8) Fetus (sex and body length).
(9) Testes (weight and histological condition).
(10) Stomach contents (species and quantity).
(11) Endoparasites (species, numbers, and pathological effects).
(12) Vertebral epiphyses (degree of fusion determines physical maturity).

Results

At the termination of each individual Special Scientific Permit, a preliminary report listing the sex, length, and locations and dates of capture of each whale was submitted to the Secretary of the International Whaling Commission.

The following report, which summarizes the results of our studies on sperm whales through 1969, was submitted to the Special Meeting on Sperm Whale Biology and Stock Assessments of the Scientific Committee of the International Whaling Commission, held in Honolulu, March 13–24, 1970: Rice, D. W., and A. A. Wolman, 1970. Sperm whales in the eastern North Pacific: Progress report on research, 1959–1969. 18 pages.

Data from the above report, along with data from other countries engaged in sperm whale research, were incorporated in the final report of the special meeting: International Whaling Commission, Scientific Committee, 1971. Report of the special meeting on sperm whale biology and stock assessments. Twenty-first Report of the Commission, pages 40–50.

A final report of our studies on sperm whales is now being prepared, and will be published.

The data from biological investigations have permitted preliminary estimates to be made of the sustainable yields of some stocks of sperm whales. As a result the International Whaling Commission has set catch limits for sperm whales in the North Pacific Ocean, and in the western Indian Ocean and adjacent sector of the Antarctic. As further data become available, these estimates of sustainable yield will be refined, and estimates will be made for stocks in other parts of the world.

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[1] Four were not examined when they arrived at the whaling station because the biologist who was to take the observations and specimens had to go to the hospital.

A SAMPLE OF A WHALING PERMIT FOR THE MARINE MAMMAL BIOLOGICAL LABORATORY

This permit is granted subject to the following conditions:

1. The permit shall be effective from the date of issuance and shall terminate on ______________________.

2. The permittee shall notify the Regional Director, Pacific Northwest Region, Room 6116, Arcade Building, Seattle, Washington 98101; (*a*) When and where hunting for whales under this permit will begin and when such hunting is completed; and (*b*) when a change is made in the locality where hunting is to be conducted.

3. No parts of the whales taken shall be wasted. Those parts not removed and retained for scientific analysis shall be delivered to a land whaling station licensed by this Service to engage in the processing of whales for commercial purposes.

4. The permittee shall furnish a report of the results of the research conducted hereunder in form suitable for transmittal to the International Whaling Commission in compliance with the requirements of Section 3, Article VIII, of the Whaling Convention.

EXAMPLE OF A SCIENTIFIC PERMIT FOR NON-GOVERNMENT INDIVIDUALS

This permit is granted subject to the foowing conditions:

1. The permission granted hereunder shall extend through ________________.

2. This permit applies only to activities conducted in international waters off ____________________. It does not authorize any operations in areas under the jurisdiction of the Government of (non-U.S.A.).

3. In the event that whales shall be accidently killed during the experiment operations, further attempts shall be terminated.

4. In keeping with the requirements of paragraph 2, Article VIII of the Whaling Convention, in the event that any whales are killed accidently while attempting to implant a tracking device, they shall, so far as practicable, be processed in accordance with directions issued by this Government.

5. The permittee shall furnish to this Service a report in triplicate of the results of the research conducted hereunder in a form suitable for transmittal to the International Whaling Commission in compliance with the requirements of Section 3, Article VIII, of the Whaling Convention. This report shall be submitted on or before December 31, 19____.

SUMMARY OF SCIENTIFIC PERMITS TO TAKE WHALES ISSUED TO NON-GOVERNMENT INDIVIDUALS OR INSTITUTIONS

The informaion is presented in the following order: Permit number (notes year and sequential number); date permit was issued; to whom issued; number and species allowed; purpose; and number of whales actually killed or captured.

1958–1; October 28, 1958; Frank Nolan; 4 gray whales.

Experiments on taking of heartbeats, electro-cardiograms; effect of injection of an antibiotic; studies of heart, hormonal assays and steroid determinations; biochemical analysis of blood serum and/or plasma; commercial utilization potential. No whales were taken under this permit.

1959–1; January 15, 1959 (March 30, 1959—time extension); Frank Nolan; 4 gray whales.

Experimental purposes same as 1958–1. Two whales were killed under this permit.

1963–1; July 1, 1963; Richard B. Lyons; 4 whales (except right whale).

To obtain organs and tissues for multi-disciplinary biological and physiological studies (haemoglobin, ion transport, structure and physiology of reproductive tract, hormones, and others). No whales were taken under this permit.

1965–2; June 30, 1965; Richard B. Lyons; 12 whales (no more than 6 gray whales, no right whales).

To study the biology and physiology of whale organs and tissues—extension of work under Permit 1963–1. No whales were taken under this permit.

1962–3; April 12, 1962; William Schevill.

1964–2; February 26, 1964; William Schevill.

1965–2; March 29, 1965; William Schevill.

Radio-tagging of right, humpback and fin whales to study the migrations of those species off the eastern United States.

1964–4; September 17, 1964; Robert W. Elsner; 3 gray whales.

To study the physiology of the circulatory and respiratory systems of gray whales. No whales were taken under this permit.

1965–4; November 30, 1965; Palmer T. Beaudette.

To tag 3 gray whales, observe and photograph whale behavior, and to record whale sounds.

1966–3; May 24, 1966; John Prescott (Marineland of Pacific); 2 minke whales.
1967–2; March 7, 1967; John Prescott (Marineland of Pacific); 2 minke whales.
1968–3; April 1968; John Prescott (Marineland of Pacific); 2 minke whales.
1969–2; June 21, 1969; John Prescott (Marineland of Pacific); 1 gray whale.
1969–3; February 12. 1969; John Prescott (Marineland of Pacific); 2 minke whales.

Purpose of all permits: To take and hold live for public display; to investigate techniques of capture and transportation; to ascertain food requirements; to study sound production and comparative behavior. No whales were taken under these permits.

1968–1; January 22, 1968; John Schultz; 2 gray whales.

To tag migrating gray whales with electronic tracking equipment; to establish feasibility of electronic tagging and tracking; to observe behavior during migration.

1969–4; March 1969; John Schultz; 1 gray whale.

To tag and investigate the behavior during the northward migration; to observe the behavior in the oceanic region influenced by the Santa Barbara oil spill.

1970–3; April 1970; Kenneth S. Norris; 4 sperm whales, 2 humpback whales.

For purposes of live scientific studies on diving physiology, acoustic emissions, behavior and neurophysiology. No whales were taken under this permit.

1970–1; October 29, 1970; Kenneth S. Norris (per permit 1970–3).
1971–2; January 18, 1971; J. Thomas Whitman; 3 sperm whales.

To capture and hold for public display; to study aspects of transportation and holding of large marine mammals. No whales have been taken to date under this permit.

1971–3; March 2, 1971; David W. Kenney (Sea World); 2 gray whales.

To take for public display and biological research on nutrition, physiology, pathology and behavior. One whale was captured alive in Mexican waters under this permit (a permit was also issued by the Government of Mexico).

1971–4; August 6, 1971; J. Thomas Whitman (Marine World); 2 humpback whales.

To capture and hold alive for purposes of "display, scientific research, and educational use." No whales have been taken to date under this permit.

1971–6; August 4, 1971; G. L. Kooyman; Sperm whale (no number).

To carry out observations of surface and dive times, behavior at the surface, and to make underwater recordings of vocalizations.

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Gilmore, Raymond M. 1960. A census of the California gray whale. U.S. Fish Wildl. Serv., Spec. Sci. Rep. 342.

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Rausch, Robert L., and Dale W. Rice. 1970. *Ogmogaster Trilineatus* sp. n. (Trematoda: Notocotylidae) from the fin whale, *Balaenoptera physalus* L. Proc. Helminthol. Soc. Wash. 37(2) :196–200.

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1960. Distribution of the bottle-nosed dolphin in the Leeward Hawaiian Islands. J. Mammal. 41(3) : 407–408.

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1963. Progress report on biological studies of the larger Cetacea in the waters off California. Norsk Hvalfangst-Tid. No. 7, pp. 181–187.

1963. The whale marking cruise of the *Sioux City* off California and Baja California. Norsk Hvalfangst-Tid. No. 6, pp. 153–160.

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1965. Offshore southward migration of gray whales off southern California. J. Mammal. 46(3) : 504–505.

1965. Bryde's whale in the Gulf of Mexico. Norsk Hvalfangst-Tid. No. pp. 114–115.

1967. Cetaceans. In Recent mammals of the world, a synopsis of families, edited by Sydney Anderson and J. Knox Jones. The Ronald Press Co., New York, pp. 291–324.

1968. Stomach contents and feeding behavior of killer whales in the eastern North Pacific. Norsk Hvalfangst-Tid. No. 3, pp. 35–38.

1969. Sperm whales—Sounders of the deep. Pacific Search 3(7) : 2p. insert.

1970. Gray whales—long distance swimmers of the east Pacific. Pacific Search 4(8) : 2–3.

Rice, Dale W., and David K. Caldwell. 1961. Observations on the habits of the whalesucker (*Remilegia australis*). Norsk Hvalfangst-Tid. No. 5, pp. 181–189.

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Rice, Dale W., and Allen A. Wolman. 1971. Life history and ecology of the gray whale *Eschrichtius robustus*. Amer. Soc. Mammal., Spec. Publ. No. 3.

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Rice, Dale W.:

1964. Eskimo whaling in Arctic Alaska, 23 processed pp.

1966. Blue whales in the waters off Baja California. Marine Mammal Biological Laboratory, 17 processed pp.

1966. Status of humpback whales or their wintering grounds in the southeastern North Pacific, 11 processed pp.

Rice, Dale W., and Allen A. Wolman:
1967. The gray whale: age, growth, reproduction, and the annual cycle. Marine Mammal Biological Laboratory, 34 processed pp.
1969. Sperm whales in the eastern North Pacific: Progress report on research, 1959–1969, 18 processed pp.

MATERIAL SUPPLIED BY NMFS (BCF) TO INTERNATIONAL WHALING COMMISSION, 1966–1971

International Whaling Commission, 23rd Annual Meeting, 1971; U.S. Progress Report on Whale Research, February 1970–March 1971. (Studies mentioned were on North Pacific stocks of fin, sei, gray and sperm whales.)

International Whaling Commission, 22nd Annual Meeting 1970; U.S. Progress Report on Whale Research, February 1969–March 1970; Contribution to Special Meeting on Sperm Whale Biology and Stock Assessments March 13–24 1970; SP/3 Sperm Whales in the eastern North Pacific: Progress Report on research, 1959–1969 Rice and Wolman.

Information not available for 1969.

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International Whaling Commission, 19th Annual Meeting 1967; Eighth Meeting of the North Pacific Working Group U.S.A.—(1) The grey whale: Age, growth, reproduction and the annual cycle—D. W. Rice and A. A. Wolman.

International Whaling Commission, 18th Annual Meeting 1966; Contributed to Scientific Committee through 7th meeting of North Pacific Working Group; Blue whales in the waters of Baja, California, Dale W. Rice, 1966; Growth and reproduction of the gray whale, Dale W. Rice; United States whale marking June 1965–June 1966; Hosted IWC/FAO Joint Working Party on Whale Stock Assessment, January 26–February 2, 1966 in Seattle.

Hosted Sixth Meeting of the North Pacific Working Group of IWC, Honolulu, February 7–12, 1966.

Submitted Status of humpback whales on their wintering grounds in the southeastern North Pacific, D. W. Rice.

Progress Report on sperm whale research, United States.

JUNE 14, 1971.

UNITED STATES PROGRESS REPORT ON WHALE RESEARCH, FEBRUARY 1970–MARCH 1971

1. Species and Stocks Studied

Studies have continued on the eastern North Pacific stocks of fin, sei, gray, and sperm whales.

2. Field Observations and Collections

Biological data and specimens, including ear plugs or teeth, were collected from 5 fin whales, 4 sei whales, and 56 sperm whales at the Richmond, California shore station during 1970. Thirty of the sperm whales were collected under a Special Scientific Permit and were undersized, lactating, or taken outside the regular whaling season.

A census of the southward-migrating gray whales at Yankee Point, Monterey county, California, was conducted from 10 December 1970 to 13 February 1971.

Catcher-boat captains have continued to record sightings of protected species (blue and humback whales) off central California.

On 15 March 1971, the oceanarium *Sea World* of San Diego captured alive a gray whale calf in Laguna Ojo de Liebre (Scammon's Lagoon), Baja California, under Special Scientific Permits issued by the United States and Mexican governments. Data on growth, nutrition, metabolism, and other aspects of its biology are being systematically recorded.

3. Marking

No whales were marked, and no marked whales were recovered.

We have a contract with the Floy Tag Company of Seattle to develop a mark suitable for use on whale calves and other small cetaceans.

4. Laboratory work

Laboratory work on most of the collected material has been completed.

5. Results

During the 1970/71 season, 3325 gray whales were counted passing Yankee Point during daylight hours (0700–1700). This figure is almost the same as the counts made during the previous three seasons, and further confirms our opinion that the eastern Pacific gray whale population has remained stable since at least the 1967/68 season (see Rice and Wolman, 1971).

A specimen of the bathypelagic anglerfish *Ceratias holboelli* from the stomach of a sperm whale taken off California constitutes the first eastern North Pacific record for this fish, and its third known occurrence in the diet of the sperm whale. The identity of certain large squid beaks from California sperm whale stomachs has been confirmed as *Architeuthis* sp.; these specimens represent the first known occurrence of *Architeuthis* in the eastern Pacific.

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Kenyon, K. W., and D. W. Rice. 1971. [Review of] Anderson, Harald T. (ed.). The biology of marine mammals. J. Mammal. 52(1): 253–555.

Rausch, R. L., and D. W. Rice. 1970. *Ogmogaster trilineatus* sp. nov. (Tremaetoda: Notocotylidae) from the fin whale *Balaenoptera physalus* L. Proc. Helminthol. Soc. Wash. 37(2): 196–200.

Rice, D. W. 1970. Gordon C. Pike, 1922–1968 [obituary]. J. Mammal. 52(2): 434–435.

Rice, D. W. 1970. Gray whales—long distance swimmers of the East Pacific. Pacific Search 4(8): 2–3.

Rice, D. W., and A. A. Wolman. 971. Life history and ecology of the gray whale (*Eschrichtius robustus*). Amer. Soc. Mammal. Spec. Publ. 3:1–142.

Mr. POTTER. I am a little confused. Are these reports you are talking about in the nature of scientific papers or simply reports to the International Whaling Commission saying we killed *x* number of whales and why, sex, size, and what have you?

Mr. POLLOCK. I would presume Dr. Harry could answer better, but I would presume that they are for research purposes and in the course of that, that reports are made to the Whaling Commission.

Mr. POTTER. What we want is a copy of any research papers, showing the results from the taking of the whales.

Mr. POLLOCK. No problem. We will be happy to do that.

Mr. DINGELL. And if no such information is available we would like to be advised also.

Mr. POTTER. Mr. Pollock, in the Department's comments on the bill, H.R. 10420, it indicated among other things that "Those States with resident populations of marine mammals already have, in effect, appropriate regulations governing the utilization and conservation of those mammals." That is on page 2.

Mr. POLLOCK. Of my testimony?

Mr. POTTER. No; of the Department's report.

Mr. POLLOCK. Yes.

Mr. POTTER. Are you suggesting to the committee that it is therefore unnecessary for the Federal Government to regulate the taking of marine mammals which may be migratory or which may be threatened or international in character?

Mr. POLLOCK. I think our feeling generally is that where the States are doing a proper job, and we believe most of them are, where marine mammals are involved, that there should be cooperative programs, that we should not enact legislation which would take away the right or superimpose upon the States a Federal law to regulate them where it is being properly done.

Mr. Potter. Well, let us take the State of Alaska. Are you familiar with that?

Mr. Pollock. Yes.

Mr. Potter. Let us take those animals for which your Department has responsibility, that is to say seals and whales. Is it your belief that the Alaskan regulations for the taking of these mammals are presently adequate?

Mr. Pollock. So far as I know, the law is adequate.

Of course, in the case of fur seals we have the international convention, and the Fur Seal Act which control the fur seals and the Fish and Wildlife Act of 1956. We are quite in control of the fur seals.

Mr. Potter. If they were not, I take it you would have no objection to letting the Federal Government work out cooperative arrangements?

Mr. Pollock. We have no objection to working out cooperative arrangements in any way.

This is the proper way to do it rather than take away the right from the State.

Mr. Potter. The reason I asked the question is because Alaska does not attempt to regulate porpoises or whales at all. As to porpoises, there is no closed season or no limit and as beluga whales there is no closed season and no limit.

As far as seals are concerned from north of the Alaskan Peninsula all the way up around the coast for hair seals there is no closed season or a limit and as I understand it, reading from Alaska's regulations, there is a bounty paid for the killing of hair seals.

Mr. Pollock. There is a bounty on hair seals in certain portions of the water off Alaska and this is in protection of the salmon industry.

This is a matter of balancing these interests.

Mr. Potter. These seals which are subject to bounty include the ringed seal, the bearded seal, the harbor seal, and the ribbon seal, and I understand the ribbon seal has been classified as a rare species by Interior.

Mr. Pollock. To my knowledge there is no bounty paid on the ribbon seal.

You see, you have to put this in its proper context. There are 34,000 miles of shoreline in Alaska and in some of those areas far up to the north there is no bounty paid on this. There are no salmon populations that go there.

Now, there are other places where there are important salmon populations and where seals do take a lot of salmon, and the bounty is placed under those conditions, and they are a very common seal, the hair seals.

Mr. Potter. Hair seals include ribbon seals.

Mr. Pollock. They include everything, but I am saying as a practical matter they are not taking scarce species.

Mr. Potter. At this point I would ask the chairman for permission to include in the record such portions of the Alaska game regulations as are appropriate and also the page from the Interior Red Book indicating the status of the ribbon seal as rare.

Mr. Dingell. Without objection, it is so ordered.

(The information follows:)

MARINE MAMMAL HUNTING

Species and Units	Open Seasons	Bag Limits

Marine mammal hunting. Following are the seasons and bag limits on marine mammals, and the units or portions of units to which they apply:

(1) SEA LION,* PORPOISE AND BELUGA

Units 1 through 26	No closed season	No limit

**Sea lion: provided that the taking of sea lions for commercial purposes in excess of 10 is permitted only under the terms of a permit that may be issued by the Commissioner in consideration of conservation requirements.*

Species and Units	Open Seasons	Bag Limits

(2) SEAL

(including only harbor seal, ringed seal, ribbon seal and bearded seal)

Units 1 through 16	**June 20 - July 31 **Oct. 15 - April 30	*No limit
Units 17 through 26	No closed season	No limit

**Any person taking seals at Tugidak Island or from the area from Cape Menshikof to Cape Leontovitch shall make the pelts of any seals taken there available in the field for inspection at the request of an authorized representative of the Department.*

***Provided that fishermen are allowed to kill nuisance seals involved in fishery depredations and provided further that four seals may be taken at any time for noncommercial purposes under the terms of a permit issued by the Commissioner.*

Species and Units	Open Seasons	Bag Limits
(3) SEAL, ELEPHANT		
Units 1 through 5	No open season	
(4) WALRUS		
Units 9 and 17	No open season	
Units 18, 22, 23 and 26	Resident: No closed season	One adult bull; provided however, that residents dependent upon and utilizing walrus for food may take up to 5 adult cows or subadults (either sex), and adult bulls without a limit; and provided further, that orphaned calves may be taken for food without contributing to the bag limit.
	Nonresident: No closed season	One adult bull

Taking of Polar Bear, Walrus and Sea Otter on the High Seas

The taking of polar bear, walrus and sea otter on the high seas by residents of Alaska is permitted only by accordance with the seasons, bag limits, methods and means, and licensing provisions that presently pertain to the taking of these animals in Alaska and its territorial waters.

Bounties. Bounties, as established by statute, will be paid in the following game management units or parts thereof, upon compliance with the bounty procedures set forth in AS 16.35.050 through 16.35.130:

Coyote.—No bounty paid in any unit.

Wolf.—Bounty paid in Units 1, 2, and 3 only.

Wolverine.—No bounty paid in any unit.

Hair seal.—Inland and coastal waters of Alaska west of 159 degrees west longitude or north of 69 degrees north latitude, except the waters south of 58 degrees north latitude.

(Excerpt from "Rare and Endangered Fish and Wildlife of the United States," 1968 ed.)

Ribbon Seal—*Histriophoca fasciata* (Zimmermann)

ORDER: PINNIPEDIA; FAMILY: PHOCIDAE

Distinguishing characteristics.—Adults attain a length of up to 6½ feet; coloration in male dark brown marked with well-defined yellowish-white band around the neck, one around base of each forelimb, and one around rump; coloration of female pale grayish-yellow or grayish-brown, with whitish band across lower back.

Present distribution.—In general, from Kurile Islands and Okhotsk Sea northward along the coasts of Kamchatka and in the Bering Straits. Along the Alaska coast, from Point Barrow to the Aleutian Islands.

Former distribution.—Roughly the same.

Status.—Rare.

Estimated numbers.—No estimates.

Breeding rate in the wild.—Young are born on the ice in March, April and early May. Females probably breed once every two years.

Reasons for decline.—This species has apparently always been rare; there probably has been no decline in recent years.

Protective measures already taken.—None.

Measures proposed.— None at present.

Numbers in captivity.—Unknown.

Breeding potential in captivity.—Unknown.

References.—Allen, G. M. 1942: 447–449; Allen, J. A. 1880: 676–682; Brooks, James W. 1963. Management and status of marine mammals in Alaska. Trans. N. Amer. Wildl. & Nat. Res. Conf. 28: 314–326; Kenyon and Scheffer, 1955: 23; Scheffer, 1958: 103.

Mr. POLLOCK. Mr. Chairman, I think it would be appropriate to say there are no regulations on a number of these because there is simply no taking.

There are no people in the area that utilize these species that I gather the counsel is concerned about.

The natives will harvest a limited amount of them in the winter months.

Mr. DINGELL. As I understand, though, the idea of bounty is to shoot the thing as a varmint and present an ear or some other part and get your bounty.

Mr. POLLOCK. But Mr. Chairman, the bounty is not paid all along the coastline of Alaska, only in limited areas.

Mr. DINGELL. Well, I think the Alaska game regulations go to that particular point. It says sea lions——

Mr. POTTER. Mr. Chairman, referring to the regulations and to the map it appears that bounties are paid on hair seals for inland and coastal waters of Alaska, 159° W. longitude or north of 69° N. latitude and that essentially is as I read it, the waters from Bristol Bay north.

Mr. DINGELL. As I read 159° longitude it hits Alaska about Perryville.

Mr. POLLOCK. May I have Mr. Kirkness make a comment?

Mr. Kirkness is our acting director for resource management in the fisheries service, but he was formerly the commissioner for fish and game for the State of Alaska and could probably answer your question with some degree of specificity.

Mr. DINGELL. As I note 58 degrees would cover practically the entire Alaska Peninsula south of a place called Egegik.

Mr. KIRKNESS. At one time the bounty system on seals was throughout Alaska and the biologist working on this requested many times it be abandoned because it was a waste of money since the system did not reduce seal population but merely kept them in a healthy state. The legislature did, some years ago, remove the bounty in most of Alaska but left it in Arctic Alaska from about Togiak on up the Northwest Coast. This was kept primarily as the monetary basis to pump a little money into the local economy since the Natives up there have a very low income.

When the Natives harvest an animal, not only do they get the meat and skin and make things to sell to tourists, but also they get a $3 bounty, and it was left in the Arctic Alaska, on around the northern area.

As Mr. Pollock said, the reason there are no regulations on many species is because these species are what you could call a saturated population, hardly utilized, but they are utilized by a small segment of the population largely throughout the year.

Mr. DINGELL. Let us talk a little bit about that. That is a very interesting point:

I would appreciate it if you gentlemen as our experts down there would tell us. You say here those States with resident populations with marine mammals now have in effect appropriate regulations—would you tell us what species?

First of all, is it not a fact that before you can have a regulation that you have to have knowledge of population levels and age groups, mortality, length of life, and the harvest and, of course, the entire area of residency, migration, and population?

Is that not a necessity?

Mr. POLLOCK. I think that is correct.

Mr. DINGELL. Would you name us the species of animals, marine mammals on which any State has that kind of information?

Mr. POLLOCK. I do not know what information the States might have at this point. We could certainly inquire and provide it.

Mr. DINGELL. I am curious to know is there any species of marine mammal on which this kind or volume of information is available to us?

Mr. POLLOCK. I do not know.

The State of Alaska, as I indicated in the letter to the secretary, has a staff or biologists trained in marine mammal work which is second in size only to the National Marine Fisheries Service.

Mr. DINGELL. Second to the National Marine Fisheries Service?

Mr. POLLOCK. I am saying we have a lot of biologists.

Mr. DINGELL. Do you folks have any information on any populations of marine mammals with the exception of fur seals?

Mr. POLLOCK. I am sure we do.

Mr. DINGELL. I would like for you at this time to name it for us.

Mr. POLLOCK. Mr. Terry says whales.

Mr. DINGELL. Some people tell us the population on the fur seal is not correct. Can you name us any other species?

Mr. POLLOCK. Well, Mr. Terry mentions whales.

Mr. DINGELL. All right, I want you to give us the name of any whale that you have population figures on within 500. Just name one species.

Mr. TERRY. Mr. Chairman, I am not at all sure that we have population figures on any type of whale within 500.

Mr. DINGELL. What is the magnitude of plus or minus error on whale populations, then?

Mr. TERRY. I am not prepared to say.

We have prohibited the taking of whales by Americans. We are satisfied with the information that we have that a number of these whales are in a very dangerous condition.

Mr. DINGELL. Well, I am still waiting for somebody to tell me.

You have got blue whales, maybe 3,600 and in 1930 to 1940 there were 100.

Fin back, there were 400,000. Today there are 100,000.

These are the best figures we can get.

The sperm whale, 600,000 for the same period and today it is down to perhaps 50,000. This is an endangered species.

The humpback whale was 100,000 and is down to 2,000.

Now, the blue whale, I do not know what the population is, but it is a relatively small thing.

You indicated here that we have a situation which dates the resident populations of marine mammals already in effect.

If you do not know the population of these marine mammals, how are you going to tell us the regulations are adequate or appropriate?

That is the purpose of a good regulation, knowing what the population is. Then you can arrive at the number, what the harvest can be.

We do not have the information at hand that is needed, so name these then if you please, one State with resident populations of marine mammals having, in effect, appropriate regulations governing the utilization and appropriateness of these marine mammals.

Mr. Pollock. You are making a very flat presumption.

I do not know what each of these States may have and they may have the statistics on them. I am not prepared to say.

It is pretty obvious that if you have regulations over a period of years on a particular mammal and they are available in the area, not scarce, apparently not diminishing, then your regulations must be sufficient or adequate. Almost all wild animal populations are managed through various indicators such as average age and various localized counts of animals. Total population counts necessarily are estimates.

Mr. Dingell. Would you say that is good regulation practice?

Mr. Pollock. No, sir.

Mr. Dingell. Is that the way the folks down at Commerce regulate these marine species? If that be so, maybe that is why we are in trouble.

Mr. Pollock. Mr. Chairman, we do not have all the information we need on any of these species, I am sure.

This takes time and there are studies that are necessary, but we know by the presence of the animals that some of these animals are not in serious trouble.

Mr. Dingell. Then you have species that travel the whole of the ocean. The gray whale has a migration that has mystified philosophers and biologists for generations.

The polar bear, nobody knows where he comes from or originates.

Seals, thousands and thousands of miles.

The porpoises likewise, and most of your whale species move over incredibly vast areas of the ocean and we know little about their movement and habitat.

This is the precise point. Here you are coming in and telling us we ought to make an exception to the State regulations of species that cover, for example, all of the polar area like the polar bear.

Seals migrate hundreds of thousands of miles.

Mr. Pollock. We were not talking about pelagic species but rather resident species in the territorial waters only.

Mr. Dingell. What resident species do you refer to?

Mr. Pollock. In Alaska and California, the sea otter or the harbor seals.

Mr. Dingell. That falls under Interior, and Interior is not protesting this particular section.

Mr. Pollock. I am only trying to respond to your questions, sir.

Mr. Dingell. I am trying to get your expertise in coming up with an exception or justification for the section that you allude to here.

Well, thank you very much.

Mr. Potter, any further questions?

Mr. POLLOCK. Mr. Chairman, before we wind it up let me make one point. The point made in that paragraph, it was our feeling that the Congress in its wisdom, in the Submerged Lands Act of 1953, 43 USC 1301 granted to the States certain jurisdiction over living marine resources in their territorial seas.

We are simply saying we do not think it is proper in the conduct of legislation now to reverse that and take it all away if we can work out cooperative programs with the States.

Mr. DINGELL. I am sure you are aware in the bills before us we do have a provision for cooperative management programs, but I am satisfied you understand that perhaps the maximum boundary of the State's jurisdiction is 3 miles.

Mr. POLLOCK. It is today.

Mr. DINGELL. And the probability of expansion of that jurisdiction is most conjectural.

Mr. POLLOCK. But I think in 1973 it will probably go to 12 miles. I am just grabbing at that based on my feeling for the law of the sea.

Mr. DINGELL. As author of the 12-mile limit legislation, as the man who handled that inside this committee, I assure you that will be viewed with a very fishy eye in this particular committee.

I give you firm assurances on that point.

Mr. POTTER. I have been in contact with a number of people who speak very highly of Dr. Perrin's work and we want you to know that we appreciate your bringing him as you were asked to do.

I would like to ask you, Dr. Perrin, if you can tell me is there any discernible trend in the taking of porpoises? Are we catching more this year than yast year or catching about the same amount of what?

Dr. PERRIN. The only data we have is on the yellow fin taken, on the tons of yellow fin tuna that are taken.

Mr. DINGELL. Doctor, do you want to come up to the witness table?

Mr. POLLOCK. Before we proceed with that, I would like to introduce Dr. William Aron who is here, our Director, Office of Ecology and Environmental Conservation.

Will you stand, Doctor?

Mr. DINGELL. I would also like to thank you, Mr. Pollock, for your kindness in making Dr. Perrin available to us.

Mr. POTTER. As I understand it, your estimates of tuna taken has been pretty much tied to the tonnage (and I think I got the figure from the National Marine Fisheries Services) as 3.9 porpoises per ton.

Dr. PERRIN. That is the figure we used.

Mr. POTTER. What is the tonnage of the yellow fin taken by the fleet?

Dr. PERRIN. It is going up steadily.

Mr. POTTER. Can you give me what the figures were say 5 year ago?

Dr. PERRIN. I can give you figures for 1966 when there were approximately 44,000 tons of yellow fin tuna taken in conjunction with porpoise schools. This is in the yellow fin regulatory area.

In 1967 there was approximately 33,000.

In 1968, it was approximately 35,000 or 44,000.

In 1969, there was quite a jump to approximately 83,000 tons.

We do not have the data yet for 1970 or, of course, for 1971.

Mr. Potter. Does porpoise meat have any market value in this country?

Dr. Perrin. No.

Mr. Potter. We have heard rumors that other countries may be considering gearing up to catch porpoise.

Mr. Pollock. May I excuse my general counsel? We have a meeting scheduled for 4:30 at the State Department and several of us are supposed to go. We are considerably late.

Mr. Potter. I do not have any questions that require the advice of counsel, I think. If we do, we can defer.

Mr. Pollock. Mr. Terry and I were both supposed to be over at the State Department.

Mr. Dingell. We can excuse you and if we have other questions or information we can communicate with you and get the information.

Gentlemen, we thank you.

Are you going to go, Mr. Pollock?

Mr. Pollock. I think I had better stay.

Mr. Dingell. You are welcome either place.

Mr. Pollock. I think Mr. Terry will have to go.

Mr. Potter. I would note for the record that this committee is a much more interesting place to be than the State Department.

Have you given any thought, Mr. Pollock, to whether or not it would be an appropriate exercise of regulation to give the Secretary the authority to regulate the conditions under which marine mammals might be kept by zoos or marinelands or such operations?

Mr. Pollock. I think we indicated that we think the Secretary should have some standby authority that he may or may not exercise so that he would have the authority to issue regulations if this became necessary.

Mr. Dingell. If you would yield at that point. Would you see to it that your counsel submits to us language you would deem appropriate for that particular end?

I think it would be helpful to us if you would give us suggestions in the form of drafting service.

Mr. Pollotk. The standby authority. Yes, sir; we will look at it.

It may be in our draft bill, but if not, we will provide it.

Mr. Potter. We have received information—and if I can make my filing system work I will find it—regarding the fur seal program and specifically with relation to the question of the interrelationship of the U.S. Government and the Fouke Co. in South Carolina.

With the Chair's permission I would ask to put into the record a copy of a letter to the National Marine Fisheries Services by minority counsel for the committee and their answer relating to the operation of the Fouke contract.

Mr. Dingell. Without objection, it is so ordered.

(The letter follows:)

Committee on Merchant Marine and Fisheries,
December 30, 1970.

Mr. Philip M. Roedel,
Director, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Interior Building, Washington, D.C.

Dear Mr. Roedel: Attached are several articles from the Fall 1970 Report of "Friends of Animals, Inc." dealing with the harvesting of seals on the Pribilof Islands. While much that is reported in these articles has been previously documented elsewhere, this is the first instance in which I have read of the federal government's involvement in the economic aspects of fur sealing.

In order to enlighten the members of the Merchant Marine and Fisheries Committee regarding this matter, I would appreciate your furnishing me a detailed report of the extent to which the federal government, as represented by your department, assists financially or otherwise in the transportation, processing and distribution of seal skins taken on the Pribilof Islands. In this connection, I also would appreciate a more complete analysis of the contractual relationship between the federal government and the Fouke Fur Company of Greenville, South Carolina, than appears in these articles.

Sincerely yours,

Richard N. Sharood,
Minority Counsel.

U.S. Department of Commerce,
National Oceanic and Atmospheric Administration,
Washington, D.C., January 12, 1971.

Mr. Richard N. Sharood,
Minority Counsel, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

Dear Mr. Sharood: This is in response to your letter of December 30, 1970, to Mr. Philip M. Roedel, Director of the National Marine Fisheries Service, concerning the Federal Government's involvement in the economic aspects of fur sealing.

Under the law (16 U.S.C. 1154), the Secretary of the Interior is to provide for the processing of fur sealskins and for the sale of fur sealskins, and the Secretary is authorized to enter into agreements with any public or private agency or person for this purpose. (This responsibility was transferred to the Secretary of Commerce under President Nixon's Reorganization Plan No. 4 of 1970.)

The Fouke Company is under contract to the U.S. Government for processing U.S. Government-owned Alaska fur sealskins and selling them for the account of the U.S. Government. (A copy of the current contract is enclosed.) After deduction of the Fouke Company compensation, based upon the contractually prescribed formula, the net proceeds received by the U.S. Government are deposited under a special account in the U.S. Treasury. Congress appropriates funds to the Department to defray expenses of administering the fur seal program.

Since the sale price of the fur sealskins bears directly on the proceeds from the program, it has been considered that fur seal advertising by the contractor is in the interest of the Government by serving to stimulate interest in fur sealskins which would be reflected in prices received from the sales. The current contract provides that the contractor will promote and advertise processed sealskins, and estimated promotion and advertising costs were included as a part of the total estimated costs from which the negotiated contract price formula was established as the basis for payment to the Company upon sale of the fur sealskins. Advertising costs considered in the contract negotiations as being applicable to the U.S. Government each year are substantially less than one-third of the $750,000 frequently cited by critics of the Pribilof Islands seal harvest.

Under the terms of the contract the Government is responsible for transporting the raw pelts from the Pribilof Islands to the Fouke Company plant in Greenville, South Carolina. The processing and sale of the sealskins from there on is covered under the contract.

The history of the contractual relationship between the Fouke Company and the Federal Government is as follows.

Contracts with the Fouke Company and its predecessor agency date back to 1915. In that year a 5-year contract was awarded to the Funsten Brothers firm, headed by Mr. P. B. Fouke, for processing and sale of U.S. Government-owned Alaska sealskins. In 1921 the Fouke Fur Company was organized and was awarded a 10-year contract. In 1931 a new contract was awarded the Fouke Fur Company which was terminated in 1939. At that time bids were solicited and, based on qualifications of the bidders, a contract was awarded to the Fouke Fur Company. This contract was renegotiated in 1947 and continued in existence, with several amendments, until 1962. In 1963, following solicitation of proposals, a contract was awarded to the "Supara" firm; in the same year this contract was declared by the Comptroller General of the United States to be invalid. A contract was awarded to the Pierre Laclede Company in 1965 for research and development and for processing a limited quantity of sealskins; this contract was terminated in 1967. In 1965 a 5-year contract was awarded to the Fouke Fur Company, following an extensive effort to develop competition and following comprehensive evaluations of proposals from four firms. In February of 1970 the present contract was negotiated with and awarded to the Fouke Company which covers processing sealskins from the 1968, 1969, and 1970 harvests and six semiannual sales through the spring of 1973. As of this date, to the best of our knowledge and belief, the Fouke Company is the only firm that has the capability to process sealskins in a manner that will bring the highest revenue to the U.S. Government.

We trust that the foregoing will supply you with the information needed to enlighten the members of the Merchant Marine and Fisheries Committee regarding this matter. Should you need any additional information we will be pleased to supply it.

Sincerely,

JOHN W. TOWNSEND, Jr.,
Acting Associate Administrator.

FEBRUARY 1, 1971.

Mr. JOHN W. TOWNSEND, Jr.,
Acting Associate Administrator, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Washington, D.C.

DEAR MR. TOWNSEND: Thank you for your letter of January 12, 1971, concerning administration of the fur seal program. I have a few additional questions which you may be able to assist me with. For ease of response, I am numbering these questions. Your further asistance in this matter is greatly appreciated.

1. How much money has the United States grossed from the sale of furs during the past decade by year?
2. How much money has the Fouke Company or other contractors grossed under its agreements with the United States during the same period?
3. List the officers, directors, and, if known, stockholders of the Fouke Company.
4. Pursuant to the Fur Seal Convention, what is the value of seal skins transferred to the Soviet Union during the past decade?
5. Under Article 2 of the Fouke Company agreement, the United States appears to bear all costs of transportation of sealskins to Greenville, South Carolina. What is the cost of this service?
6. Your letter states a rationale for the contractor's advertising program, and and states that the cost is, in fact, less than one-third of the $750,000 figure quoted by critics. What is the exact sum involved?
7. Please furnish me the first annual financial statement submitted pursuant to Article 9(e) of the Fouke agreement when available.
8. What is the basis for Article 23 of the Fouke contract?
9. How many Alaskan natives live on the Pribilof Islands? What is their average family income? Please furnish a census breakdown, if available.
10. What is the total cost of administering the Pribilof Islands, including the fur seal program? Please furnish a complete breakdown of the cost for the current fiscal year.
11. Please comment directly on the allegations on page 9 and 10 of the Friends of Animals, Inc., Fall 1970 Report that the harvest is not, in fact, a substitute for natural mortality.

Sincerely yours,

RICHARD N. SHAROOD,
Minority Counsel.

U.S. DEPARTMENT OF COMMERCE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
Rockville, Md., February 23, 1971.

Hon. RICHARD N. SHAROOD,
Minority Counsel, Committee on Merchant Marine and Fisheries,
House of Representatives,
Washington, D.C.

DEAR MR. SHAROOD: This is in response to your letter of February 1, 1971, in which you ask 11 questions regarding the administration of the fur seal program. Answers are provided in the same order that the questions appeared in your letter:

1–2. Gross receipts and contractor costs:

Year	Gross receipts from sale of sealskins	Contract processing and sales costs
1961	$2,839,862	$1,582,876
1962	2,742,403	1,461,380
1963	3,566,764	1,733,740
1964	3,500,691	1,845,991
1965	2,530,301	1,508,379
1966	2,794,485	1,117,027
1967	2,582,028	1,134,270
1968	2,884,813	1,213,832
1969	3,029,340	1,241,742
1970	2,226,108	1,076,297

4. Soviet fur sealskins:

No Pribilof fur sealskins have been transferred to the Soviet Union. The international Interim Convention on Conservation of North Pacific Fur Seals requires 15 percent of the U.S. harvest to be delivered to each, Canada and Japan, respectively. The same requirement is also applied to the U.S.S.R. harvest.

5. Costs of transportation of the sealskins from the Pribilof Islands to Greenville, South Carolina:

Pribilofs to Seattle, Washington, via National Marine Fisheries Service vessel: 1969, 10,000; 1970, $10,800; Seattle, Washington, to Greenville, S.C., via rail, 1969, $13,700; 1970, $13,200.

7. Annual financial statement:

The first financial statement to be submitted under the contract has not been received to date. The Company's Secretary-Treasurer advised us that the Company anticipates availability and transmittal of its financial statement to the Government during the week of February 15, 1971.

8. Basis of Article 23:

Article 23 was incorporated, as a matter of practice, into all contracts issued by the issuing organization, the former Bureau of Commercial Fisheries, as a general provision. The provision is identical to that set forth in the Federal Procurement Regulations (41 CFR 1–7.101–19) for use by Government agencies in fixed price supply contracts entered into by formal advertising and in negotiated contracts. It is, as a matter of course, incorporated into most, if not all, Federal Government contracts. The provision has as its apparent statutory source Title 18, Crimes and Criminal Procedure, of the United States Code under Chapter 24., Contracts, sections 431 through 433.

9. Population and income of the Pribilof Islands residents:

St. Paul Island, 470; St. George Island, 161; total, 631.

In 1967, according to a survey made for us by the University of Alaska, the average income per household was $10,560. We have no later data nor do we have a census breakdown.

10. Administration cost:

The cost of administering the Pribilof Islands including the fur seal program is shown on the enclosed table for FY 1970.

11. Allegations of Friends of Animals, Inc.:

The meaning is often not clearly understood of statements such as "killing is beneficial to the population," "Killing saves seals from starvation," and a statement attributed to former Assistant Secretary of the Interior, Leslie L. Glasgow, that "the harvest is merely a substitute for natural mortality." Obviously, harvesting does not benefit the individual seal killed, but neither is the harvest detrimental to the survival of the entire seal population. The above quotes emphasize that harvesting a wild animal crop under an adequate management plan does not lead to decimation of the population.

Most management plans for fish and wildlife populations, including the plan for fur seals, emphasize the maximum sustainable yield. Maximum sustainable yield is based on a concept that the death rate increases with an increase in the population until at some level mortality is so great that additions to the breeding population decrease or remain constant. At that level the total number of animals also decreases or remains constant. At some lesser population level, however, the maximum number of additions to the harvestable resource of animals occurs and this is the level of maximum sustainable yield. For the fur seal, this level is about three-quarters of the maximum population possible.

Fur seals are being managed to achieve a population level which will give the maximum yield of skins. In the early 1900's the population level of fur seals was too low to give a maximum yield of skins so their numbers were allowed to increase. The important mortality of fur seals occurs from birth to about age 3 years. By the early 1940's the death rate had increased to the extent that additions to the mature female herd about equaled the number lost to natural mortality and the population stopped increasing. Since then, the fur seal population has been reduced to about the level which gives the maximum sustainable yield of skins and at this lower level the death rate from birth to age 3 years is less than at the maximum level. Diseases, parasites, stravation, and overcrowding are some of the factors that may increase the death rate and reduce additions to the mature herd when the population increases beyond the level of maximum sustainable yield.

We feel that since this is not a publicly-held corporation, the information on stockholders in answer to question 3, and the information on cost estimates for advertising in answer to question 6, may be considered confidential commercial or financial information pursuant to 5 U.S.C. 522(b)(4), and therefore not subject to disclosure to the public. Our General Counsel's Office is presently looking into the matter. Therefore, until we have a determination, we would appreciate it if you would treat that information as confidential.

Should you need any additional information, we will be pleased to supply it.

Sincerely,

John W. Townsend, Jr.,
Acting Associate Administrator.

National Marine Fisheries Service Alaska Fur Seal Program Obligations for fiscal year 1970

Operation and maintenance—NMFS vessel	$347, 360
Transportation of fuel oil to islands	77, 100
Administration of community	304, 087
Education and training	180, 792
Civil Service retirement for Islanders	97, 409
Police protection	14, 000
Miscellaneous	11, 886
Utilization of fur seals	285, 931
Killing and skinning	72, 575
Curing and packing skins	167, 556
Transportation of skins, Seattle to Greenville, S.C	13, 252
Fur seal herd management	24, 513
Roads to rookeries	8, 036
Replacement and modernization (new construction)	383, 958
Electricity, sewer, water systems	53, 195
Automatic powerplant	49, 595
New equipment	56, 420
Relocating tank farm	17, 973
Design new processing plant	45, 747
Miscellaneous	14, 334
New house	103, 129
Village services—St. Paul (operation and maintenance)	616, 753
Management and facilities (docks, roads, airstrip, communication)	271, 218
Powerplant	102, 618
Stores and warehousing	51, 232
Equipment operation and maintenance	111, 394
Lighterage and cargo handling	48, 041
Government mess	32, 250
Village services—St. George	386, 571
Management and facilities	170, 868
Powerplant	30, 698
Stores and warehousing	80, 349
Equipment operation and maintenance	75, 034
Lighterage and cargo handling	17, 118
Government mess	12, 504

National Marine Fisheries Service Alaska Fur Seal Program Obligations for fiscal year 1970—Continued

Seattle program office	$165, 136
Research laboratory	266, 837
Supplies on hand	24, 203
Administration	270, 400
Total	3, 128, 336
Receipts (meals, lodging, transportation, etc.)	399, 726
Net	2, 728, 610

Mr. Potter. This indicates that the company gets around 40 percent to 60 percent of the gross proceeds that are paid for the account of the United States in the sale of the furs that are auctioned off.

The existing contract between the Fouke Co. and the U.S. Government calls for the submission of financial statements annually.

Would you provide the committee with a copy of the most recent financial statement submitted by the Fouke Co.?

Mr. Pollock. Yes, sir, and I would like to say generally I do not know the specific answer, but I would like to make the remark that Fouke processes Government-owned furs and they then sell them for the Government, not for themselves.

Mr. Potter. I understand that. They sell them at a public auction.

Mr. Pollock. Yes.

Mr. Potter. Will you supply that information?

Mr. Pollock. Yes.

(The information referred to was provided to the committee but is considered confidential and was therefore placed in the committee files.)

Mr. Potter. My question was that, in a given year the Government will get over $2.5 million and Fouke may take half of that, or $1.25 million.

It seems to me this is a fairly comfortable margin. The real point of my asking the question was we are all concerned with improving the economy of the Pribilof Islands and I was just wondering if the U.S. Government might profitably and properly work out some sort of an arrangement whereby the Pribilof Islands would get a little bigger share of the pie.

Mr. Pollock. We have some figures here, 1965 to 1970 on the distribution of the amount of money received from the sale of the Alaska fur seal skins, the total net amount to the Fouke Co. and the amount to the U.S. Government which we would be happy to provide.

If you want additional information, and we do not have it here today, we would be happy to provide it to you.

It is my understanding that about 70 percent of the net proceeds are given to Alaska under the terms of the Statehood Act.

Mr. Dingell. That is the net profit?

Mr. Pollock. That is right.

Mr. Dingell. We are talking here about gross receipts from seal skin sales. For example, 1961 gross receipts were $2,839,062.

The Fouke Co. got for contract processing and sales cost $1,582,876 or 55.8 percent.

Mr. Pollock. When was that?

Mr. Dingell. In 1961. It run over the past years, 55 percent, 55.8 percent, 53 percent, then 48.8 percent, 52.7 percent, 59.6 percent, 40 percent, 43.8 percent, 42 percent, 41.5 percent, 48.5 percent.

I will not say that Fouke did not earn the money, but it looked like they were doing better than we were.

Mr. Potter. Obviously, the figures you have do not tie in with the figures we have.

The reference that I had is a letter from John Townsend to Mr. Sharood dated February 23 or February 28, 1971, I am having trouble making the date out, and you might want to run down your own files and figure out how these relate to each other.

It just occurred to me this does appear to be a large sum of money and since we are all concerned about improving the economy of the Pribilof Islands, we are running perilously close to what the United States used to be accused of doing with the underprivileged countries, going in and taking resources and taking most of the most of the money for the United States.

Mr. Pollock. I understand they have quite a complicated contract in figuring out the price.

Mr. Potter. I can assure you that it is. I spent 2 days working through the contract formula procedures.

Mr. Pollock. Do you wish us to respond to this in writing? We will have to check the letter.

Mr. Potter. It would be most helpful if you will, to see if we can integrate these figures with the figures you have got which I would like to have also.

Mr. Dingell. I think it would be helpful. You might want to submit the figures you have with you, Mr. Pollock, so we can try to round them off with what we have, those that have been submitted to the committee.

Mr. Pollock. Yes.

(The information follows:)

DISTRIBUTION OF AMOUNT RECEIVED FROM SALE OF ALASKA FUR SEALSKINS, 1960–70

Year	Total net	Fouke Co	U.S. Government
1960	$4, 743, 350. 54	$1, 587, 948. 73	$3, 155, 401. 81
1961	4, 089, 016. 12	1, 514, 082. 69	2, 574, 933. 43
1962	4, 386, 633. 99	1, 477, 694. 87	2, 908, 939. 12
1963	6, 003, 959. 44	1, 956, 088. 60	4, 047, 870. 84
1964	4, 601, 365. 26	1, 722, 044. 23	2, 879, 321. 03
1965	3, 153, 011. 96	1, 053, 641. 21	2, 099, 370. 75
1966	4, 469, 614. 38	615, 452, 56	1, 400, 183. 48
1967	3, 372, 012. 17	527, 059. 66	1, 156, 293. 18
1968	4, 426, 299. 98	613, 999. 08	1, 440, 733. 05
1969	3, 782, 989. 58	539, 077. 38	1, 087, 562. 02
1970	2, 906, 118. 28	607, 643. 35	670, 982. 69

Mr. Potter. It has been alleged by the opponents of the fur seal program that the Fouke Co. advertising budget is very substantial—on the order of $750,000 for 3 years. I think that was the figure used.

Can you tell me, one, is that true; and two, does that come out of Fouke's share of the proceeds or the Government's share of the proceeds?

Mr. Kirkness. The figure has been bandied about as the amount for advertising for 1 year and it is considerably off.

Some years ago when the U.S. Government negotiated the contract, the Government decided that advertising was in the best interest of the Government getting more money for the sealskins.

When the contract is negotiated with Fouke, consideration is given in the contract for the fact that Fouke will advertise.

Mr. Potter. And that is worked into the formula for computing the Fouke share?

Mr. Kirkness. Yes, that is correct.

Mr. Dingell. I find myself hard put to figure out how advertising sealskins contributes to the conservation of the seal.

Mr. Kirkness. It does not contribute to the conservation except you get more money.

Mr. Pollock. It contributes to the sale of the furs. It brings more money to the Treasury and maybe then you can do more research.

Mr. Dingell. I have been defending this from the conservation end and I come to the conclusion that maybe you are not as interested in the conservation of the seal as I thought you were.

Mr. Pollock. Several of us would like to comment.

I would ask Mr. Kirkness to respond.

Mr. Kirkness. I think Congress itself asked us to do this in the Fur Seal Act of 1966.

Mr. Dingell. Is there a specific section in that statute that tells you to advertise seal skins?

Mr. Kirkness. Not specifically advertise.

Mr. Dingell. If there is, I would like to know about it. We may want to repeal it at this particular time and if it is not, you folks have some more explaining to do.

Where in the statute are you direced to advertise the sealskins?

Mr. Kirkness. There is no specific place in the contract that says you shall advertise sealskins.

Mr. Dingell. Where are you directed to take action by advertising seal skins?

Mr. Kirkness. The Secretary is instructed to harvest, process and sell sealskins and, therefore, presumably, to get the most money for the product that is possible.

Mr. Pelly. They are sold at auction, are they not?

Is there any reason why you have to advertise like you were selling on the retail market? That is an awfully large expense it seems to me.

All you have to do is send out a letter to all the fur buyers when you are going to hold your auction and that is all there should be to it.

Mr. Dingell. It has always been my impression that you advertise the auction, but that you did not advertise the product. If I am in error on that, I will be glad to correct my judgment.

Do you have a comment?

Mr. Kirkness. Mr. Chairman, as I said, at the time the U.S. Government felt it was advantageous that Mr. Fouke, who was the dealer, who handles the sealskins, advertise these so they would bring the highest price.

Mr. Dingell. I am of the impression it is not in the best interests of the seals.

I have some question as to whether it is in the best interests of the Federal Government.

I think that that quarter of a million dollars could be better spent by the natives than by the Fouke Co. or by Madison Avenue.

If I am in error, I would like for you to correct me. If you folks are in error, go back to the drawing board and correct it.

I would find myself very hard put to justify this sealing program to anybody, to my constituents or the people at large if you folks go on advertising sealskins to support this operation.

I cannot see how the seal is going to be preserved by you folks advertising sealskins. I find myself hard put to understand how the Aleuts are going to be appreciably bettered by having you folks advertising sealskins and draining money off from the contract that could have gone into the pockets of the Aleuts up there.

Mr. PELLY. Mr. Chairman, could we have a justification for this advertising submitted for the record so that we can find out on what basis they negotiated a contract?

Mr. DINGELL. That would be most welcome.

Mr. POLLOCK. We will be happy to supply that.

I think the basic premise is that these furs are desirable and they are sold on the market; there is more money in the fund which will assist the natives more.

But we can supply that, Mr. Chairman.

(The information follows:)

JUSTIFICATION FOR FOUKE ADVERTISING

Under law (16 U.S.C. 1145), the Secretary of Commerce is to provide for the processing of fur sealskins and for the sale of fur sealskins, and the Secretary is authorized to enter into agreements with any public or private agency or person for this purpose. 16 U.S.C. 1154(a)(4) specifically contemplates market promotion by the Secretary. The Fouke Company is under contract to the U.S. Government for processing U.S. Government-owned Alaska fur sealskins and selling them for the account of the U.S. Government. After deduction of the Fouke Company compensation, based upon the contractually prescribed formula, the net proceeds received by the U.S. Government are deposited under a special account in the U.S. Treasury. Congress appropriates funds to the Department of Commerce and they are in turn made available to the National Marine Fisheries Service to defray expenses of administering the Pribilof Islands and the related fur seal program including, as an example, the payment of wages to the native Aleut inhabitants who are employees of the National Marine Fisheries Service.

The Service has considered fur seal advertising by the contractor as in the interest of the Government by serving to stimulate interest in fur seal, which in turn would be reflected in prices received from sales and thereby, the amount of proceeds to be received by the Government. The current contract provides that the contractor will promote and advertise fur seal, and estimated promotion and advertising costs were included as part of the total estimated costs from which the negotiated contract price formula was established as the basis for payment to the Company upon sale of the fur sealskins. The Government-owned fur seal thereby bears an allocation of the Fouke Company's total advertising program and the Government, under the contract, reserves the right to review from time to time the Company's general program of advertising and promotion. However, the Company is not contractually required to submit each individual advertisement for specific Government approval before publication, and the Company does not receive direct payment or direct reimbursement from the Government for advertising expenses.

Mr. DINGELL. Well, we give the Japanese and the Russians a share of the take.

Mr. POLLOCK. No, sir; the Japanese and the Canadians get a share of the take and the Russians give them 15 percent as we do.

Mr. PELLY. Has the price of furs not gone down since the department started advertising?

Mr. POLLOCK. No, sir; it started going down since the conservationists have been talking about not killing any kind of animals.

Mr. DINGELL. Do we give them skins or give them cash money or a percentage of the take or what do we give them?

Mr. Pollock. We give them skins.

Mr. Dingell. So we are not benefiting the seal and the aims of conservation by giving our good friends, the Canadians, Russians, and Japanese a bigger chunk of money.

Mr. Pollock. No; but if we harvested 50,000 or 60,000 skins and there was no market for them, obviously there would be no purpose in doing this.

The Aleut population there on St. Paul and St. George would derive no benefit whatsoever.

Mr. Dingell. This gets us down to a rather fundamental question.

As I read it, the title is conservation and protection of the North Pacific fur seals. Now, I do not find anything in there that says that this is to the benefit of the Aleuts.

If I am in error on that point I would be delighted to have you correct me.

Now, would you like to cite to us, if you please, in title I relating to conservation and protection of fur seals under section 101 anything that says we are supposed to up the take to the Aleuts?

Mr. Pollock. We construe it.

Mr. Dingell. Please do not construe it.

Mr. Pollock. Under subchapter 2, section 1161.

Mr. Dingell. Are you dealing with the code citation or the citation of the act?

I have the act before me.

Mr. Pollock. Mr. Chairman, 16 U.S.C. 1161 and 1162 specifically deal with that and also 63 and 64.

Section 1161 talks about the special reservation and the purposes. It says the Pribilof Islands shall continue to be administered as a special reservation by the Secretary of Interior (that has been changed under Reorganization Plan No. 4) for the purpose of conserving, managing, and protecting the North Pacific fur seals and other wildlife and for other purposes.

Mr. Dingell. I am interested in you telling me where that directs you to advertise sealskins.

Mr. Pollock. May I continue?

Mr. Dingell. Yes.

Mr. Pollock. Section 1162, contracts, agreements, leases or permits for use of Government-owned property for specific purposes.

This says the Secretary in carrying out the provisions of this subchapter is authorized to enter into contracts or agreements or leases with, or to issue permits to public or private agencies or persons, including the natives of said islands in accordance with such terms and conditions as he deems desirable for the use of any Government-owned real or personal property located on the Pribilof Islands.

Mr. Dingell. That does not deal with advertising sealskins.

Mr. Pollock. You are talking about what the money is used for.

Mr. Dingell. Where are the directions in that statute? You are a lawyer.

Mr. Pollock. Mr. Chairman, if you are searching for whether or not it says you shall or shall not advertise, it does not.

Mr. Dingell. I am still curious to know where you got the authority in that statute to advertise sealskins.

I am waiting, Mr. Pollock.

Mr. Pollock. The feeling—it was before I came abroad and it was also before when it was in the Department of Interior.

Mr. Dingell. Let us understand one thing. I recognize you had nothing to do with the negotiation of the contract or making the judgment and you are sent up to defend it and I expect you to do your best and I expect that you are going to tell us where you got the authority to advertise sealskins.

Mr. Pollock. We think we have it under the general authority of the chapter to the extent that we increase the amount of money that we get into the fund from the sale proceeds. We have it available for municipal and other purposes.

Mr. Dingell. The statute here is for the conservation and protection of the North American fur seals and not to advertise hides.

I am waiting for you to tell me the authority.

The general section gives you general authority to do the things that are specifically enunciated elsewhere and not to do anything else that comes to your mind.

If we are going to take the assumption that general authority gives you authority to do anything that crosses your mind down there, we might as well close the Congress up and go home and let you do what you have in mind, because we have been enacting general statutes for the freedom of the people and the dignity of the Congress for a long time.

Mr. Pollock. Mr. Chairman, we were given the authority to operate the program, to administer the program and to the extent that the sales proceeds are increased, then to that extent we have the money available through the natives and for other purposes.

Mr. Dingell. If you gave the natives that one-quarter million dollars you blew on advertising, they would have one-quarter million dollars more.

I will give you authority to submit to us an opinion justifying the advertising for seals, but I am going to ask you a different question. How does advertising protect and conserve the fur seals?

Mr. Pollock. It does not, and I did not make that statement.

Mr. Dingell. The statute says that is what you are supposed to do.

Mr. Pollock. We conserve these seals under our conservation program; and if we harvested the skin and they were not salable, there is no market for them, we could not get the funds for the program to provide for other purposes; that is, for the natives.

Mr. Dingell. That is an additional whereas and wherefore, but that is not the function of the statute.

The function of the statute is to conserve the North Pacific fur seal. It is not to advertise seals and not to help the Fouke Co., and it is not really to increase the capital return and the income of the Pribilof Islanders.

I was in the Congress when we passed that statute. You may have been on the subcommittee at that time, but it was not our intention.

Mr. Pollock. Mr. Chairman, may I call your attention to title 16, United States Code, section 1154, the authority of the Secretary, and the agreements.

One portion of that is subparagraph No. 4, utilize such quantities of fur sealskins taken pursuant to this section as the Secretary deems desirable for product development and market promotion.

Mr. DINGELL. Well, it looks to me like we may have to repeal that section, although it seems to refer only to the use of skins themselves for promotional purposes.

Mr. PELLY. Mr. Chairman, I think it would be well also to have submitted in the record the description and the amounts of promotion money, advertising costs, what magazines they went into, and just how this authority was taken in order to try to advance the price and sale and demand.

Mr. POLLOCH. How many years do you want to go back, Mr. Pelly?

Mr. PELLY. 1966 it was negotiated into the contract.

Mr. POLLOCK. From 1966?

(The information follows:)

Amount of total advertising cost allocated by Fouke to U.S. Government-owned skins

Year:	
1966	$145, 648
1967	138, 564
1968	160, 620
1969	161, 919
1970	127, 128

ADVERTISING MEDIA USED BY FOUKE CO.

Under the provisions of the various contracts with the Fouke Co., the advertising approach for the forthcoming year is reviewed. The Fouke Co. describes the direction and media that will receive direct attention. Generally it is the printed media such as newspapers, and popular and fashion magazines, both in Europe and the United States. In the United States, newspapers such as the New York Times, Wichita Eagle Beacon, Chicago Tribune, Women's Wear Daily, and Buffalo Courier Express have carried advertising. Magazines such as Time, Newsweek, Playbill, Vogue, Harper's Bazaar, and the New Yorker have also carried advertising. In addition, television appearances, radio interviews, and fashion shows have been conducted to promote the acceptance of Alaskan fur seal garments. The advertising campaigns by the Fouke Co. and an agency under contract with Fouke Co. are within the guidelines and approved budget estimates.

Mr. DINGELL. Let me ask, if you are going to benefit the Pribilof Islands', would you not best see that the skins were processed in the area and the islanders have an opportunity to get the economic gains from that activity as opposed to sending it to the Fouke Co. down in South Carolina?

Mr. POLLOCK. Mr. Chairman, many years ago when I was in the Alaska Legislature, we had extensive hearings on precisely this point, and for the purpose of trying to move the industry from where it was, I believe, in St. Louis, Mo., but it is now in South Carolina, to Alaska; and after the extensive hearings and after investigation of other people in the business, it was determined that the Fouke Co. has a unique capability for doing this that no other people can match.

Mr. DINGELL. Can you not take the unique ability up to the Pribilofs?

Mr. POLLOCK. They have chosen to try to do this. There have been a number of furs set aside for the natives on the islands to try to learn the trade and to try and tan and so forth, and they simply have not done it.

They do not have the capability, and nobody in the fur tanning industry can match the quality of fur that is processed by the Fouke Co.

That is the only reason we have it down there.

(After the close of the hearings, information was received by the committee describing the activities of the Fouke Co. with regard to the Alaska fur seals. The information follows:)

CHAPMAN, DUFF AND LENZINI,
Washington, D.C., September 29, 1971.

Re hearings on Ocean Mammal Protection Bills; H.R. 6554, H.R. 10420.

Hon. JOHN DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation, House Committee on Merchant Marine and Fisheries, Washington, D.C.

DEAR MR. CHAIRMAN: On behalf of The Fouke Company, Greenville, South Carolina, I wish to submit the following information for the record in connection with the above-referenced bills. The Fouke Company and its predecessors have processed Alaska fur sealskins under contract with the U.S. Government for over fifty years. Accordingly, the Company is interested in the hearings which have been held on the above-referenced bills. The issues before the Subcommittee involve finding the best means of conserving and protecting valuable marine mammal resources. We would support a bill along the lines of H.R. 10420.

With respect to the Pribilof Island program, the annual harvest represents the management control phase of the overall fur seal program. Qualified marine mammal scientists have declared and the history of the Pribilof program demonstrates that the annual harvest results in a healthy, productive population. Since the Alaska fur seal is a commercially valuable animal, we believe that no purpose is served by denying the rational use of a valuable product of nature.

With respect to operations of The Fouke Company which may be of interest to the Subcommittee we desire to submit for the hearing record the following information:

1. *Compensation.* Pursuant to the agreement (U.S. Government Contract No. 14–17–0007–1111) entered into between the Bureau of Commercial Fisheries and the Fouke Company on February 13, 1970 covering the processing and sale of U.S. harvested and owned Alaska fur sealskins from the annual Pribilof harvest for 1968, 1969, and 1970, the Company is compensated on a per skin basis for each category of sealskin sold in accordance with a contractual formula. For the last seven auctions the Company has received the following compensation from sales of the U.S. share.

Date	Net proceeds of sale	U.S. Government share	Fouke compensation	Compensation as percent of net proceeds	Number of U.S.-owned skins auctioned
Spring 1968	$2,371,567	$1,728,539	$643,028	27.1	23,184
Fall 1968	2,054,732	1,465,733	588,999	28.7	23,573
Spring 1969	2,156,346	1,553,604	602,742	27.9	23,264
Fall 1969	1,626,639	1,112,562	514,077	31.6	23,313
Spring 1970	1,625,785	1,113,566	512,219	31.5	23,555
Fall 1970	1,278,625	670,982	607,643	47.5	16,227
Spring 1971	1,358,255	698,229	660,026	48.5	17,843

Under both the current and prior contracts the compensation to the Company is based upon the ultimate sales price at which skins are sold. Thus the Company's compensation can increase or decrease because of favorable or unfavorable economic conditions. During the last two auctions conducted under the prior contract, poor economic conditions resulted in the Company's compensation being less than its cost. The prior contract formula was calculated on a base amount (which was less than cost) plus an increasing rate of participation as sales prices increased. Under the current contract a formula was devised whereby the Company's break-even point is lower but in return it receives a decreasing rate of participation as sales prices increase. Total net proceeds of the past two sales have been substantially reduced due to lower volume of skins available and adverse economic conditions.

2. *Advertising.* The current processing agreement and past agreements with the U.S. Government have for many years required that The Fouke Company develop the market for processed sealskin through use of but not limited to merchandising and promotional work including recognized methods of advertising and means designed to stimulate interest and sponsorship of fashion designers,

couturiers and editors, in this country and abroad. (Agreement, Art. 7.) The Company's general program of advertising and promotion is, pursuant to Article 7, reviewable by the Contracting Officer upon request and the annual promotion and advertising budget is subject to prior approval of the Contracting Officer. In addition to sealskins owned by the U.S. Government, the Company also receives for processing sealskins owned by the Governments of Canada, Japan and the U.S.S.R. as well as sealskins from South Africa and Uruguay. Audited advertising and promotion expenditures for the past five years and projected expenditures for 1971 are as follows:

Calendar year	Allocated to U.S. share	Allocated to others	Total
1966	$145,037	$150,499	$295,536
1967	138,558	145,559	284,117
1968	160,620	147,193	307.813
1969	161,916	145,582	307,498
1970	127,094	169,374	296,468
1971 (projected)	142,000	174,000	316,000

Neither the U.S. Government nor any other government subsidizes the advertising program. Advertising, like every other operation of the Company—processing, research, auction—is paid for from the Company's share of moneys generated through the sale of skins. The company receives raw skins from all its shippers having a low value and for which there is little demand and produces a finished skin having a high value because of the quality of the processed skins and the demand therefor. It is from the increased value that the Company's overhead items, including advertising, are covered.

Advertising and promotion are essential to maintain the image of Alaska fur seal as a fashionable fur. The market for the finished product is dependent on women's fashions and strong competition exists in the market among producers and processors of mink, persian lamb and chinchilla to maintain an image. Every fur group gives advertising or promotional support to retailers. Retailers will advertise only if assured of support at the retail level and the backing of national and international advertising and promotion. Were mink, persian lamb and chinchilla advertised but not Alaska fur seal, it is inevitable that the latter would quickly lose its position as a fashionable fur.

Despite the contractual requirement that the Company develop the market for processed sealskin the agreement itself also specifically provides that the minimum number of sealskins is guaranteed. Article 1(a) of the Agreement provides:

Consistent with the proper conservation and development of the fur seal herd or herds under its administration, subject to many factors not within the control of man, and with a view to promoting the optimum utilization of such fur seal herds as a natural resource, the Government each year harvests in the Pribilof Islands or elsewhere such numbers for fur seals as are consistent with the purposes of the [Fur Seal Act of 1966] Act. Because of fluctuations in size of annual harvests, a minimum number of sealskins is not guaranteed, and the failure to harvest any particular quantity of fur seals shall not constitute breach of contract.

3. *Processing in Alaska.* Processing of fur seal by The Fouke Company is a there-month operation involving many steps not commonly used on other furs. Such steps include unhairing, dehairing with highly specialized machinery, and dyeing, the total process involving permanent de-kinking of the natural curly fiber as well as imparting of luster. At Greenville the Company employs 239 individuals, well over half of whom fall into categories of skilled, semi-skilled, supervisory, research, and managerial personnel.

A study by a reliable management engineering firm in 1962 indicated that establishment of a processing plant in Alaska would be totally impractical. First, the skins after processing must be transported from Alaska to the lower states anyway, most for delivery in New York City where the skins would go to coat manufacturers or be transshipped to European buyers. Cost of shipment of high value finished skins would, in fact, be substantially higher than the cost of shipping raw skins. Second, bulky supplies needed in large quantity for the Fouke process are not available in Alaska and would have to be shipped at great expense from sources mostly in the Eastern United States. Third, labor costs in Alaska would be substantially higher. These factors would greatly increase the cost of processing the skins, and other governments whose skins are now processed by Fouke would probably not want their skins processed in Alaska at such increased costs. As a result, a plant in Alaska would process less than half the skins now being handled by Fouke at its Greenville plant. Nevertheless, the same number of supervisors would be required for the Alaska plant and, because of the necessity of close supervision of the process, management personnel would have to move to Alaska. As a result, the operating costs per skin would be substantially higher than the present costs. Loss of such volume from the Greenville plant would, of course, greatly increase the per skin cost of processing there and would probably render operation of that plant uneconomical.

4. *South African Skins.* The Fouke Company does not now nor has it ever processed skins of baby seals. Neither does the Company process harp seals or any other hair seal. In addition to North Pacific fur sealskins, South African and Uruguayan fur sealskins are processed although Uruguayan skins are less significant in number. The Secretary of the Department of Industries, Republic of South Africa, through the local Embassy, advises that fur seals within the jurisdiction of that country have been protected by law since 1891 and that sealing operations are subject to strict government supervision. The Secretary advises further that baby seals are not knowingly killed in the annual harvest nor are unweaned pups and females harvested. The number harvested annually amounts to less than one-third of the annual recruitment plus five-thousand surplus bachelors. According to the Secretary, the present South African seal population is estimated at one million and this population has been increasing.

We hope the foregoing information will be useful to the Subcommittee.

Sincerely,

Paul A. Lenzini,
Attorneys for The Fouke Company.

Mr. Dingell. Let us switch to another point.

Mr. Pollock. They have a particular patent.

Mr. Dingell. How many natives are employed in the taking of the fur seal and how many mainland Alaskans are employed in the taking of the fur seal and how many from the contiguous 48 are employed in the taking of the fur seal?

Mr. Pollock. Just a moment, Mr. Chairman.

Mr. Dingell. I am informed that sources of recruitment for sealskin operations, this is according to information submitted to Mr. Potter of the committee and I note here in 1967 there were a total of 78 people involved.

Of this total involved, 37 came from the Pribilofs, six from the Aleutians, 27 from the mainland of Alaska and 18 from the United States.

Since that time there has been some adjusting of the figures.

In 1968 there were 24 people from the Pribilofs who got employed in this taking, four from the Aleutians and so it was a drop in each instance, 32 from the mainland of Alaska and 12 from the contiguous 48.

In 1969, it went to 26 from the Pribilofs, three from the Aleutians, 28 from the mainland of Alaska, and 12 from the contiguous 48.

In 1970, it was 22 from the Pribilofs, six from the Aleutians, 13 from the mainland of Alaska, and 24 from the contiguous 48 out of a total of 63.

How are you benefiting the people from the Pribilofs which I suppose this bill is supposed to benefit because you cited the second section relating to the help to the Pribilof Natives, but of the 65 employed in 1970, only 22 were from the Pribilofs: one-third.

In 1969 people employed were only 26 from the Pribilofs.

Mr. Pollock. Our figures do not agree with yours.

Mr. Dingell. I cite your own report. This is marked "for administrative use only, Annual Reports, 1970, from the Pribilof Islands, Alaska, prepared by the staff, Mammal Resource Program, 1970."

If you have different figures, I would be delighted to see them.

Mr. Pollock. I have in front of me employment for July 1969. We have Pribilof residents, 176, 40 permanent, temporary 136.

We have other Alaskan Natives, temporary 30—well, it is another 35. Other than Alaskan Natives, we have 69.

We have estimated earnings for fiscal year 1969, Alaskan residents, Pribilof residents, $846,700 and other Alaskan Natives, $905,900.

Mr. Dingell. You paid other Alaskan Natives more than the Pribilovians.

How do you explain that? They are your figures, not mine.

Mr. Pollock. Excuse me. There is a correction. Other Alaskan Natives was $59,200 and $846,700 for the Pribilovians, for a total of $905,900.

Mr. Dingell. How about mainland U.S. folks? How much did you pay them?

Mr. Pollock. I do not have that figure here.

Mr. Dingell. Are they listed as being from the Pribilofs, too?

Mr. Pollock. I think Mr. Kirkness would like to respond.

Mr. Dingell. Before there be any further response, I will ask you if you will please give us the official figures.

I assume that your report here was official, but I guess maybe that is not so.

Give us some official figures and we would be very appreciative.

Mr. Pollock. May I inquire what the report is?

Mr. Dingell. I just read the title, "Annual Report of Sealing, 1970, Pribilof Islands, dated December 31, 1970 for Administrative Use Only."

It is done by the Department of Commerce, NOAA, Seattle Building, Washington.

Mr. Kirkness. I think the figures you are referring to are only the persons hiring for the blubbering and sealing operations.

Mr. Dingell. Well, I am reading here and this does not say blubbering. This says Annual Report on Sealing Operations.

Mr. Kirkness. Those are the figures and the blubbering is done primarily by nonresidents of the islands for several reasons. One is that the people of the island get first crack at the jobs and the blubbering is the least desirable job, so they do not want to be a blubberer.

Mr. Dingell. Who gets the blubbering job?

Mr. Kirkness. You need a taller person because you have to reach way over and the blubbering jobs are primarily filled by mainland Alaskans and some outsiders.

I think the figures that you have there are the actual blubbering and sealing crews.

Mr. Dingell. I can only assume, I tell you that when you folks give us information, you file your officials reports, I only assume that you are filing them correctly.

I may be in error, but I have always assumed that your in-house figures are correct and there is no qualification in the information I have been reading.

Mr. KIRKNESS. Mr. Chairman, I think those figures are correct, but they only give you one part of the operation which is the actual sealing and blubbering.

Mr. DINGELL. I am going to insert this whole report in the record and I am going to ask that you submit us such additional information, explanatory in character, of the apparent disagreement in figures that we have here before us.

In any event, it becomes indisputable to me that you folks are not putting as much into the Pribilofs as you should be under the statute, if this statute is to be interpreted as having consideration given to the well-being of the Pribilovians.

(The material follows:)

ANNUAL REPORT OF SEALING OPERATIONS, 1970, PRIBILOF ISLANDS, ALASKA

(By Staff of Marine Mammal Resources Program)

INTRODUCTION

On October 3, 1970, the Bureau of Commercial Fisheries was transferred from the Department of the Interior to the Department of Commerce. The Bureau was renamed the National Marine Fisheries Service and a function of the National Oceanic and Atmospheric Administration.

Since 1962, when the pay plan was last revised to put the Pribilof Island Aleuts on a fully competitive basis, one of the primary aims of the former Bureau of Commercial Fisheries had been to provide training in all fields sufficient to allow the residents to conduct their own affairs. As a result, no full time non-resident administrator for the Bureau has been on duty on St. George since 1965, nor on St. Paul since 1968. In each case, the island resident foreman has been in charge and no unusual or abnormal problems have arisen.

Under the provisions of the Fur Seal Act of 1966, St. Paul residents may become eligible to own their homes if certain specified conditions were met. Accordingly, an economic and social study was completed by the University of Alaska, and the Bureau of Land Management surveyed and platted the townsite. The Community of St. Paul has long operated under a corporate charter which has allowed the members to enter into various business activities. In recent years the residents have been encouraged to incorporate at a fourth class city under the laws of the State of Alaska.

SEALING OPERATIONS—COMMERCIAL PRODUCTION

Killed for processing, June 24–July 31	Males	Immature females	Mature females	Total
St. Paul Island	[1] 36,197	56	54	36,307
St. George Island	5,924	6	4	5,934
Rejected for quality:				
St. Paul Island	48	1		49
St. George Island	13			13
Net commercial production:				
St. Paul Island	36,149	55	54	36,258
St. George Island	5,911	6	4	5,921
Total	42,060	[2] 61	[2] 58	42,179

[1] 1,599 special skins (Aulson Blubbering Machine) are included in this total and are to be included in the total commercial pack.

[2] 62 immature and 58 mature females were inadvertently taken during the season and packed in barrels containing male skins. Identification strings were left attached.

FEMALE HARVEST

No female seals were deliberately killed this year with the exception of 21 white-whiskered cows that were taken for Dr. Daniels, University of Colorado, in connection with delayed implantation research. Aside from these, 110 females on St. Paul and 10 on St. George were inadvertently killed and included in the harvest. They were distinctly marked with the appropriate twine through the flipper holes designating immature and mature females and barreled along with the males.

SEALSKIN CURING OPERATIONS—SUPPLIED CONSUMED IN SEALSKIN CURING

	St. Paul Island	St. George Island
Salt in 100 pound sacks:		
Coarse, for brine curing	1,895	965
Medium, for barreling and kenching	224	53
For curing seal meat (private sales)	65	18
Boric acid in 250 pound paper barrels	39	4
Wooden barrels for sealskins and blubber	725	78

SOURCES OF RECRUITMENT FOR SEALSKIN OPERATIONS

	1967	1968	1969	1970
Pribilof Islands	37	24	26	22
Aleutian Islands	6	4	3	6
Mainland of Alaska	27	32	28	13
Contiguous 48 States	8	[1] 12	[1] 12	[1] 24
Total	78	72	69	65

[1] 2 were former Pribilovians now residing in Seattle.

Despite the number of unemployed throughout Alaska and the Alaskans attending schools in the contiguous 48 states, recruitment for the sealing season resulted in hiring a larger number of Caucasians from stateside than anticipated. During a three day interview held with Alaska Indian students at Chemawa Indian School, Oregon, 21 individuals were interviewed of which 8 were 18 years of age or over. The 8 qualified students were hired but all withdrew at a later date. One applicant from the Indian school later applied. He was the only student to arrive on St. Paul for employment. Recruitment in Alaska produced 6 applicants of which 3 withdraw later. The remaining 10 employees from the mainland of Alaska were those returning from previous years employment.

In recent years only 3 men have been employed from the Aleutian villages. The continual interest in the king crab industry resulted in many of the former fur sealing workers securing employment nearer their villages. However, due to the depressed crab industry during the 1970 season, 6 men from the Aleutian villages were recruited for our plant.

Of the other Alaska employees one was hired from Chemawa Indian School, Oregon, one from Mt. Edgecumbe, Alaska, and the remaining 11 were brought in from the mainland. A week before the season began one man recruited for St. George withdrew and 5 did not arrive at the onset of the season at St. Paul. Four of the 6 positions were filled by Caucasians from the Seattle area. During the peak of the season 46 men were employed in the plant at St. Paul and 19 at St. George.

Of the total employed in skin curing on both islands, 37 were imported from the mainland and 6 from the Aleutian Chain. Of the 43 non-residents, 32 were hired as blubberers, 23 on St. Paul and 9 on St. George. The remaining employees were laborers. Of the 6 men from the Aleutian Islands, 4 were employed in a supervisory capacity, 1 as a blubberer and 1 as a laborer.

Transportation for the workmen to and from St. Paul was provided by commercial airlines. The M/V PRIBILOF provided transportation between St. Paul and St. George.

Mr. Robert Booth, an employee of The Fouke Company, was assigned to St. Paul for two weeks at the beginning of the season. Walter Marlowe was assigned to the island for an additional two weeks, one week overlapping with Mr. Booth's stay. Their duties were as technical specialists and quality control inspectors.

REMUNERATION OF SEASONAL EMPLOYEES

All employees continue to be compensated under the Coordinated Federal Wage System. Top foreman of the skin curing plant, 1 on each island, was paid $5.63 per hour. Employees in the category of Sealer Leadingman, 1 on St. Paul and 3 on St. George, who exceeded the average set by the three-year blubbering averages, were paid $4.94 per hour. An employee who had experience in blubbering but fell below the past three-year seasonal average was classified as unskilled. The unskilled blubberers, 11 on St. George and 24 on St. Paul, where paid $4.70 per hour.

During the 1970 season a new wage standard was established for plant laborers who were semi-skilled in the work duties. Three workmen were paid under the new wage standard to receive $4.20 per hour. All other laborers in both skin-curing plants were paid $3.98 per hour. Deductions of $53.30 per week were made from the pay of temporary workmen who were housed and fed in the Alaska Dormitory. This rate remained constant throughout the season.

According to procedures initiated in 1963, whereby we attempted to inject an element of competition and encourage production, we again conferred awards to the blubberers in each of the categories (skilled and unskilled) who had the highest production and best quality of skins blubbered per hour. This policy is to encourage improved production because no form of piece work can be paid in federal employment.

First place blubberers received an award of $200 and second place blubberers received $150. A third place award of $100 applied to employees who exceeded the past season's averages by 25 percent in each of the categories. The following table depicts the awards for each of the categories:

	1st place	2d place	3d award
St. George:			
Skilled	1	1	1
Unskilled	1	1	
St. Paul:			
Skilled	1		
Unskilled	1	1	6
Total	4	3	7

MACHINE BLUBBERING

Testing the Aulson Fleshing Machine during the 1969 season demonstrated that modifications were necessary to improve the quality of the blubbering and minimize damage. Several changes were incorporated to make the adjustments more precise. New positive stops were made increasing the number of threads per inch and a calibrated dial was adapted to the stop screw. A freshwater spray was also installed on each machine. Other minor changes were made during the testing period to increase the efficiency of the machine.

It was found that in flensing the skin it must be saturated with water prior to being blubbered. The blubbering process deteriorated as the skins became progressively drier. One skin ultimately was destroyed due to the absence of free moisture during the removal of blubber by the machine. Therefore the remaining skins were resoaked prior to machine running with no damages resulting.

During the season 1,600 sealskins were used to test the quality of the machine is feasible with complete confidence. It may be well to note that during the processor for an early evaluation. As of this writing reports are favorable. All skins tested on the fleshing machine appeared to be of quality equal or superior to skins blubbered by hand. To blubber a season's production by machine is feasible with complete confidence. It may be well to note that during the draining time of the sealskins for barreling some oxidation (pinkish discoloration) develops along the edges of a number of hand blubbered skins. It was observed that during the same period of draining time on machined blubbered skins the oxidation was minor or non-existent.

SHIPMENT AND DISTRIBUTION OF SEALSKINS

Following the same format which was established in 1958 whereby Canada and Japan alternate between even and odd numbers each year to make impartial selection of their respective shares, Japan picked numbers 8, 10 and 18 out of each series of 20 barrels of sealskins, and Canada picked numbers 3, 9 and 17. This resulted in the distribution shown in Appendix A. The total commercial sealskin production was transported aboard the M/V PRIBILOF which arrived in Seattle September 19. This shipment totaled 527 barrels of which 78 were St. George skins and 449 St. Paul. In addition to the 449 St. Paul barrels, 719 skins were packed into 3 cardboard cartons. This was for the purpose of a feasibility study on using reinforced cardboard cartons in lieu of barrels as a cheaper method of shipping sealskins.

In addition to the 527 barrels of sealskins the shipment included 148 barrels of blubber which was calculated to be the amount required by The Fouke Company to process these sealskins.

Upon the vessel's arrival in Seattle 25 barrels (2,000 skins) were removed from the 1970 harvest and placed in the Rainier Port Cold Storage to be reserved for research and development experimentation. In turn, 115 barrels (8,760 skins) which comprised skins from the 1964, 1965 and 1966 harvests which had been stored at the cold storage plant, were consolidated and included in the 1970 freight shipment to the Fouke plant in Greenville, S.C. On October 7, 8, 9 and 12, a total of 617 barrels plus 3 cartons and 148 barrels of blubber was loaded aboard six damage-free railroad cars and routed to The Fouke Company in Greenville, S.C.

The standard packing formula of 80 skins per barrel was used again this past season, however at the beginning, on June 25, a substantial percentage of the harvest consisted of 4-year old bachelors which were of a considerably larger size than the 3-year old males. As a consequence, the first 2 blocks of 20 barrels (40 total) on St. George and the first 3 blocks (60 barrels total) on St. Paul were packed with 75 skins per barrel. Out of the total 632 barrels from both islands, 6 barrels were only partially filled to accommodate the precise division between countries.

Following procedures which were used in past years to identify origin, sex and age of sealskins, we continued stencilling barrels as follows:

St. Paul Island—	
Barrel No. 1 through 1,000	Males.
Barrel No. 1,001 through No. 1,500[1]	Immature females.
Barrell No. 1,501 through No. 2,000[1]	Mature females.
St. George Island—	
Barrell No. 2.001 through No. 2,500	Males.
Barrel No. 2,501 through No. 3,000[1]	Immature females.
Barrel No. 3,001 through No. 3,500[1]	Mature females.

[1] No females were barreled separately this past season. Females which were inadvertently killed in the male drives (120 for both islands) were marked and pasked along with the males.

BLUBBER RESERVED FOR SEALSKIN PROCESSING

During the 1970 season, blubber was selected for kenching in salt on St. Paul Island. The season's production of blubber was 276 barrels. During the 1969 season's production 217 barrels remained in excess on the island. From this reserve 170 barrels were withdrawn to fill the processing requirements. The remaining 47 barrels will remain on the island with the 1970 production, leaving a total of 323 barrels of blubber on inventory. The total season's production of kenched blubber was barreled. No blubber was reserved on St. George.

Based on the formula of one gallon of blubber oil for every 16 male or 26 female skins (alternatively 3.5 barrels of blubber for 1,000 males or 2.0 barrels of blubber per female skins), the following table indicates distribution of the blubber for the season:

	Males (number of skins in parentheses)	Total (barrels)
Japan	22.145 (6,327)	22
Canada	22.145 (6,327)	22
United States	103,314 (29,525)	104
Total	(42,179)	148

When the 1970 production of sealskins arrived in Seattle, 2,000 skins (25 barrels) were removed from the shipment to be held in local cold storage for possible future research and development needs. The 8,760 sealskins held in cold storage in Seattle from the 1964, 1965 and 1966 harvests were withdrawn and shipped to the processor. The blubber required to process these sealskins withdrawn from cold storage (7,058 males and 1,702 females) is 22 barrels. To compute the 22 barrels of blubber needed for processing, the 2,000 male sealskins placed in cold storage were deducted from the 7,058 males. To process the remaining 5,058 males, under the formula mentioned, will require 17.703 barrels, and 3.404 barrels for 1,702 females. The additional blubber requirement will be shipped from St. Paul Island with the 1971 production of skins and blubber. Note the 22 barrels are included with the total 170 blubber barrel requirement mentioned previously.

One drum of slurry blubber was shipped to Seattle to determine oil recovery from blubber removed by the fleshing machine. Results are unknown at this time.

BYPRODUCT UTILIZATION

This year a new five-year contract was negotiated with the Oregon Marine Products Co. for the sale of the seal carcasses from St. Paul. No proposals were received from other firms after bids were solicited. The conditions of the agreement are similar to those of the former contract with this firm.

The Japanese organization (Mitsubishi International) which has the contract to use the fur seal carcasses from St. George, has not relinquished its contract, but for the second successive year the company took no carcasses.

The St. Paul contractor had some difficulty with his plant operation and was unable to process several hundred carcasses. Because of commitments to the Alaska crab industry, the Pioneer Alaska Line was unable to transport all the ground seal meat in two shipments. The M/V PRIBILOF therefore carried 197 tons of the frozen product to Bellingham, Washington.

GENERAL ADMINISTRATION OF THE PRIBILOF ISLANDS

A team of scientists from the Virginia Mason Research Center of Seattle spent considerable time on St. Paul Island for the second consecutive year. This team conducted investigations on the feasibility of other—and possibly more humane—methods of dispatching seals. Findings are discussed in another section of this report.

Discussions with the Alaska Department of Education are now in progress concerning the construction of a new school on St. Paul. It appears quite certain that the school will be built by force account labor, financed by the State on a reimburseable basis.

Four teachers on St. Paul have returned for their third teaching term and three teachers are new to the Pribilofs. On St. George, two teachers returned for their second year and one local St. George woman received a degree in education from the University at Fairbanks and is now an accredited teacher on St. George. Total payment to the State of Alaska was about $180,000 during the 1969–1970 school year.

Elections were held in November on each island, resulting in changes in Council presidents and other Council members.

CONSTRUCTION

ST. PAUL

Eight new pre-cut homes were occupied beginning in September. Garages cannot be used until they are protected from fire according to code. Material to accomplish this was shipped on the fall trip of the PRIBILOF. The ninth house in this new housing site was also completed and occupied.

The last large septic tank, serving the industrial area and staff quarters, was completed in the fall. The drain fields should be completed in 1971.

Extensive road repair was begun after the sealing operation was completed Nearly all roads to the sealing grounds were completed, thus shortening the distance from the hauling ground to the killing area.

Much was done for the Weather Bureau in transporting, erecting on site, and repairing a new pre-fabricated house.

ST. GEORGE

During the 1970 season 5 men were employed full time on construction and maintenance. This crew was supplemented as occasion demanded, such as times when it was necessary to pour concrete, haul fill dirt, etc. The construction crew was employed mainly in constructing a new tank farm for storage of gasoline and diesel oil. The gasoline farm consisting of three 10,000 gallon tanks is virtually completed. Footings have been poured for four of eight 25,000 gallon diesel tanks which are to be installed. Work was started on converting a portion of the old dock warehouse into an electric and plumbing shop. The regular winter village crew is continuing work on this project. The construction crew also installed new doors on the Armco warehouse and placed the sewage treatment screen in its permanent location under the blubber house. One member of the construction crew (carpenter-helper) spent most of his time in constructing and installing outside ladders for fire escapes on the Company House and various homes throughout the village. Railings on some of the stairways within the village houses were also installed .

Upon the compeltion of the sealing season (July 31), workmen who had been engaged in sealing and blubbering became available and were assigned to improving the roads, hauling fill material for the new airstrip, painting houses and general maintenance work throughout the village.

TRANSPORTATION AND SUPPLY

In February 1970, all three holds of the M/V PRIBILOF were lined with plywood in order to carry bulk gravel. The ship was able to carry 2,987 short tons of this commodity to the Pribilof Islands in four trips, in addition to 1,191 tons of other cargo, for a total of 4,178 short tons of miscellaneous supplies carried on the PRIBILOF in 1970.

Southbound, in addition to empty propane cylinders, empty helium cylinders and miscellaneous small items, the PRIBILOF brought to Seattle the 1969 catch of sealskins and blubber on the April voyage, and in September, she carried the 1970 season's production. The ship also brought to Bellingham, Washington 197 tons of ground seal meat which was in excess of the carrying capacity of the commercial vessel WESTERN PIONEER.

The WESTERN PIONEER made two trips to St. Paul to pick up a portion of the ground seal meat. Due to commitments to the crab industry, the vessel was unable to carry all the meat available on either trip.

Reeve Aleution Airways, Inc. continued flights to St. Paul each Wednesday and continued the tourist flights from the end of June through August.

Alaska Pudget United Tug & Bargo Co., under contract with the Air Force, delivered 800.000 gallons of diesel fuel and 76,000 gallons of gasoline to the Bureau of Commercial Fisheries on St. Paul and St. George Islands. The company also delivered oil and gasoline to the U.S. Coast Guard on St. Paul, a pre-fabricated house for the Weather Bureau on St. Paul, and a piece of heavy equipment to St. George. The delivering company was plagued with problems this year. Two houses were scheduled for delivery to the Weather Bureau, but one half of one was dropped and destroyed in hoisting from the oil barge to the landing craft. The other half of this building was returned to the manufacturer. Because of adverse weather and landing conditions, it took a week to land the heavy equipment on St. George.

RESEARCH DATA

STUDIES BY INDEPENDENT RESEARCHERS

Scientists from three institutions pursued independent studies on St. Paul Island in 1970. The principal investigators were Drs. Merrill P. Spencer, M.D., Director, Virginia Mason Research Center, Seattle, Washington; Ke Chung Kim, Ph. D., entomologist, Pennsylvania State University; and Joseph Daniel, Jr., Ph. D., development physiologist, University of Colorado.

Dr. Spencer, a cardiovascular specialist, was accompanied by Ann Van Goethem, D.V.M., a veterinary surgeon; Mr. Uorman Simmons, an electronics technician; and Mr. Charles Barefoot, a medical instrumentation specialist. The team conducted experiments of diving physiology and euthanasia involving 32 bachelor fur seals over a 4-week period. The experiments were planned jointly by Dr. Spencer and Mark C. Keyes, D.V.M., staff research veterinarian for the Marine Mammal Biological Laboratory. Dr. Keyes directed the team during the first and fourth week when experiments pertained to euthanasia by means of succinylcholine injection or stunning and bleeding, and assisted the team during the second and third week when experiments, pertaining to diving physiology and subjection of seals to hypoxic atmospheres of carbon dioxide and nitrogen, were directed by Dr. Spencer. Eight seals were surgically instrumented for electrocardiogram, electroencephalogram, blood pressure, and blood flow. Half of these were used for diving physiology experiments followed by euthanasia by various means, and half were used for euthanasia experiments only.

Samples for blood oxygen and carbon dioxide levels were available and taken by means of instrumentation for blood pressure. Chamber oxygen was measured during hypoxia experiments. Diving physiology experiments were conducted in a tank, from a boat, or from a seaside landing. The rational for obtaining diving physiology data was that it showed the natural capacity of the fur seal to withstand high carbon dioxide and low oxygen tensions to which they were subjected in experiments of euthanasia by hypoxia.

There is no question but that fur seals can support vigorous activity under water for extended periods of time. Their ability to do this is not fully understood but is presently believed to be owing more to a higher packed red cell volume, more efficient uptake of hemoglobin-bound oxygen by the tissues (oxygen unloaded at lower tensions; more favorable dissociation curve), greater tolerance for oxygen debt by the muscle tissues, and other mechanisms, than to unique cardiovascular adjustments.

Eight seals instrumented for telemetered electrocardiograms and electroencephalogram were killed by stunning and bleeding; half of these were also instrumented for blood flow.

Six seals, also instrumented for telemetered electrocardiogram and electroencephalogram, were killed by gas-induced hypoxia; two at rest and four after exercise (taken from a drive); half by carbon dioxide and half by nitrogen.

Six seals were killed by injection of succinylcholine.

Analyses of all the data are not expected to be completed until late December 1970 but preliminary observations indicate that, in general, the approximate times required from exposure to gas, injection of drug, or impact of club to achieve death as indicated by zero blood pressure or flow, flattened brain waves (electroencephalogram), and marked aberration of the heart potentials (electrocardiogram), were 6 to 9 minutes for nitrogen, 6 to 8 minutes for carbon dioxide, 13 to 15 minutes for succinylcholine, and ⅔ to 1⅔ minutes for stunning and bleeding.

Dr. K. C. Kim began studies of fur seal lice in 1969. Although he found lice on pups both in cages away from the rookeries, it was not conclusive proof that the pups had been infested by lice that had overwintered on their mothers because their mothers had been captured from the rookery where they had been in contact with other louse-infested seals. Also inconclusive was the recovery of three adult lice from a digested bachelor skin because these were no more than might have been recovered from an inanimate object off the rookery.

The breakthrough came this past spring when Dr. Kim recovered over 70 nymphs from the digested skins of a female seal collected off the coast of Washington. Nymphs were recovered from nine other skins of fur seals collected under similar circumstances. This evidence finally established that adult seals were the source of infestation for newborn pups, particularly the mother seal because Dr. Kim found the nymphs concentrated in the area of the mammary glands.

Apparently, adult fur is not a suitable habitat for adult lice because no one, including Dr. Kim, has ever found significant numbers of adult lice on adult fur seals; however, resting nymphs are able to over-winter on adults and subadults in close association with the skin and probably undergo a final molt to adult lice near the time of parturition when they quickly desert the mother for the advantage of a much more available blood supply of the pup.

During the 1970 season Dr. Kim spent 1 week studying multiplication, growth, development, and behavior of lice on pups from the rookeries and on pups born in cages away from the rookeries.

Dr. Joe Daniel, Jr. has been studying the phenomenon of delayed implantation in fur seals since 1965 when he came to St. Paul Island and incubated fur seal blastocysts in vitro under the influence of 34 different nutrients, hormones, and other substances. None of these stimulated the blastocysts to speed up their development.

The next year he sent two graduate students, Messrs. John Cowen and Bela Gulyas, to measure the metabolic rate of fur seal blastocysts. They found that a fur seal blastocyst consumes an average of 8 millimicroliters of oxygen per hour, and Dr. Daniel concluded that control of the delay in implantation, in fur seals, did not lie in the realm of respiratory changes.

In 1967, Dr. Daniel demonstrated accelerated growth of fur seal blastocysts by incubating them with specific protein fractions found in the uterine fluids of animals that implant rapidly.

In 1970, Dr. Daniel, assisted by Dr. Keyes and Mr. Dave Fly, conducted an experiment to measure the effect on blastocyst development of altering the photoperiod, or administering serial injections of progresterons. White-whiskered females, in groups of three, were subjected for 5 days to total darkness, perpetual light, or 12 hours of light and 12 hours of darkness. Interpretation of the results has not yet been completed.

A distinguished scientist and visitor to St. Paul Island was William C. Dolowy, D. V. M., Chairman, Department of Experimental Animal Medicine, University of Washington School of Medicine. Dr. Dolowy spent 1 week on St. Paul to observe and film research activities as part of a tour to evaluate the suitability of the program for a field training ground for graduate veterinary students in the field of laboratory animal medicine. Dr. Dolowy was impressed with the adequacy of facilities and the diversity of research pursuits.

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APPENDIX A

DISTRIBUTION OF PRIBILOF FUR SEALSKINS—1970

	United States		Canada		Japan		Total	
	Skins	Barrels	Skins	Barrels	Skins	Barrels	Skins	Barrels
St. George Island	4, 145	54	888	12	888	12	5, 921	78
St. Paul Island	25, 380	320	5, 439	69	5, 439	69	36, 258	458
Total, both islands	29, 525	374	6, 327	81	6, 327	81	42, 179	536

Note: Standard packing formula used this season: St. George, 1st 3,000 skins packed 75 to the barrel, remaining season's harvest packed 80 to the barrel. St. Paul, 1st 4,500 skins packed 75 to the barrel, remaining season's harvest packed 80 to the barrel. Only 502 barrels are in shipment as 9 barrels were withdrawn to test 3 fiberboard shipping cartons, 2 containing 240 skins each and 1 containing 239 skins. The 3 cartons are included with the regular season's shipment. 20 machine test skins shipped in July to processor and 25 barrels (2,000 skins) withdrawn to reserve in storage, Seattle, for research and development. Out of the total barrels for both islands, 6 barrels are partially full containing 38 to 71 skins under the standard pack.

APPENDIX B

AGES OF MALE SEALS COMPRISING KILL, PRIBILOF ISLANDS, JUNE 24 TO JULY 31, 1970

[Calculated from samples of canine teeth]

	St. Paul Island		St. George Island	
Age	Number	Percentage of kill	Number	Percentage of kill
2	1, 725	5	98	2
3	22, 176	61	2, 916	49
4	11, 548	32	2, 274	38
5	731	2	547	9
6	17	----------	89	2
Total	36, 197	----------	5, 924	----------

APPENDIX C

ADULT MALE SEALS COUNTED, PRIBILOF ISLANDS, ALASKA, JULY 1970

Island and rookery	Date, July—	Harem	Idle	Total
St. Paul Island:				
Lukanin	13	107	35	142
Kitovi	13	241	49	290
Reef	13	716	414	1,130
Gorbatch	13	385	178	563
Ardiguen	13	108	77	185
Morjovi	14	352	80	432
Yostochni	14	791	203	994
Little Polovina	10	103	51	154
Polovina	10	87	40	127
Polovina Cliffs	10	390	74	464
Tolstoi	11	570	115	685
Zapadni Reef	10	106	29	135
Little Zapadni	10	325	66	391
Zapadni	11	664	255	919
Total		4,945	1,666	6,611
St. George Island:				
East Reef	14	102	55	157
East Cliffs	14	166	65	231
Staraya Artil	15	194	99	293
North	14	516	175	691
Zapadni	13	224	359	583
South	13	264	524	788
Total		1,466	1,277	2,743

APPENDIX D

INVENTORY OF U.S. PRIBILOF SEALSKINS FROM COMMERCIAL HARVESTS AS OF NOV. 29, 1970

	Male	Female	Total
In custody of the Fouke Co	78,962	9,194	88,156
National Marine Fisheries Service, Seattle storage	2,000		2,000
Total inventory	80,962	9,194	90,156

APPENDIX E

Pribilof Islands receipts, expenditures, and payment to Alaska for Fiscal Year 1970

Gross receipts deposited to Pribilof Islands fund:	
Fiscal year 1970	$2,232,525.14
Less: Actual cost of administration:	
Fiscal year 1970	2,676,323.50
Net receipts (credit)	443,798.36
Payment to State of Alaska for fiscal year 1970, 70 percent of $	Nil

APPENDIX F

PRIBILOF ISLANDS FUR SEALSKINS SOLD AT PUBLIC AUCTION IN 1970 FOR THE ACCOUNT OF THE U.S. GOVERNMENT

Date of sale	Total number sold	Average price [1]	D.D.M. & F.[2]		Lakoda [3]		Sheared [4]		Gross sales
			Number sold	Average price	Number sold	Average price	Number sold	Average price	
Apr. 9-10	23,507	$75.43	18,960	$78.69	2,262	$48.11	2,247	$16.99	$1,639,291
Nov. 2-3	16,215	80.77	15,243	82.06	629	49.35	343	23.89	1,290,136
Total	39,722								

[1] Computed on D.D.M. & F. and Lakoda skin prices only.

[2] Dressed, dyed, machined, and finished.

[3] Fouke trade name applied to sheared sealskins of superior quality.

[4] Sheared skins of inferior quality.

Source: The Fouke Co. at Greenville S.C.

DISTRIBUTION

Regional Director, NOAA, NMFS, NW Region, Seattle, Wash	1
Regional Director, NOAA, NMFS, Alaska Region, Juneau, Alaska	1
Assistant Director for Management and Services, NOAA, NMFS, Washington, D.C	2
Resource Management Division, NOAA, NMFS, Washington, D.C	8
Marine Mammal Resource Program, NOAA, NMFS, NW Region, Seattle, Wash.	8
Marine Mammal Biological Laboratory, NOAA, NMFS, NW Region, Seattle, Wash	5
St. Paul Island, Alaska	2
St. George Island, Alaska	2
Experimental Fur Farm, Petersburg, Alaska	1
Seattle Marketing Office, NOAA, NMFS, NW Region, Seattle, Wash	1
Seattle Market News Office, NOAA, NMFS, NW Region, Seattle, Wash	1
Technological Laboratory, NOAA, NMFS, NW Region, Seattle, Wash	1
Master, MV *Pribilof*	1
Secretary of State for Alaska, Juneau, Alaska	1
Alaska Department of Fish and Game, Subport Building, Juneau, Alaska	1

Mr. POLLOCK. Why do you say that?

Mr. DINGELL. First of all, you are pulling the lucrative end, the processing end, out of the islands; and, second, you are employing stateside people and employees from the Alaskan mainland.

I await with some interest your explanation as to not only the disparity of the figures but also as to the question of policy as to how this kind of program is actually benefiting the Pribilovians.

I am going to proceed, if I may, to another point. Are you taking females or not?

Mr. POLLOCK. Normally we do not.

Mr. DINGELL. There was one year when you did.

Mr. POLLOCK. There were several years when we did to reduce the population.

Mr. DINGELL. Why did you take females to reduce the population?

Mr. POLLOCK. Because the females are the ones that will determine the total population dynamics.

It only takes one bull to service from one to 100 females.

Mr. DINGELL. Well, now, I note here that you killed females in 1956, 27,599, and I will insert this into the record.

In 1957, you killed 47,000.

Mr. POLLOCK. That is correct.

Mr. DINGELL. In 1958, it was 31,000.

In 1959, you killed 28,000.

In 1960, you killed 4,000.

In 1961, you killed 43,000.

In 1963, you killed 43,000.

In 1964, again 43,000.

In 1965, 16,000.

In 1966, 10,391.

In 1967, 10,096.

In 1968–69 it was 13,000 and then you dropped to 200.

I missed a figure somewhere, but anyway, in 1969 it was down to 230 and in 1970, it was 121.

This also indicates that in 1970 there were 61 immature and 58 mature females killed during the season.

In fact, barrels containing male skin identification tags were unattached. If you are doing this thing officially, how come you are killing females by mistake and what is the justification for the number of females killed in 1956 through 1970?

Mr. Pollock. Mr. Chairman, first I will turn this over in a minute to Mr. George Harry, the Director of the Marine Mammal Biology Laboratory, but during the early period you mentioned we took the females to reduce the size of the herd, to reduce it to an efficient size in conjunction with the availability of island facilities.

We do not generally, if a herd is maintained at a certain size, we do not intentially take any of the females.

Some of the young males, 3- and 4-year-old males and females are similar in appearance.

If a female is on the breeding ground, then she would never be in a place where it is harvested.

We never take them from around the breeding grounds. The male, the 3- and 4-year-old males and the 5-year-old females for that matter stay around the edges of the herd.

As a matter of fact, if the bachelor males, which are the animals we harvest, got in among the females, the big bulls would kill them. Intermittently, some females will get caught with the bachelor males, but they are not intentionally taken.

I would like to give Dr. Harry an opportunity to respond.

Mr. Dingell. I note here we compare the Alaska fur seal population births and deaths from 1941, the number of births has declined from the time you have been killing fur seals rather strikingly.

The births have dropped from the first year you engaged in female kills in 1956.

Mr. Pollock. That was the purpose of it, Mr. Chairman.

Mr. Dingell. They have dropped from 992,000 down to 306,000.

Mr. Pollock. That was the purpose of taking these females during those years.

Mr. Dingell. I am curious as to how we can call this good management.

What was the reason that you had to reduce this population in such striking fashion?

Mr. Pollock. Again, I think it is proper that Mr. Harry respond because he is certainly an expert and I am not.

However, the population was too large in the estimation of the experts maintaining the herd. The way that you reduce the population is not to reduce the males, but the females.

Mr. Dingell. That is a conclusion.

Now, the statement is made the population is too large. On what basis do you make that statement?

Dr. Harry. Could I respond to that, please?

Mr. Dingell. Please do.

Dr. Harry. At the time of the negotiations leading to the signing of the treaty in 1956, all of the scientists from the four countries carefully examined all of the data available at that time on the fur seal population and came to the conclusion that the population was beyond and above the point of maximum sustainable yield.

They came to this conclusion because the population had levelled off in the mid-1940's, and was no longer growing. There was an increase in the mortality rate of pups on land and there were fairly good-sized fluctuations in the number of pups born every year.

This was the basis for the decision and it was again a decision of scientists of all countries that in order to get maximum sustainable yield, we had too many animals and they should be reduced in number.

Now, the number that you quoted or mentioned, I think 992,000 in 1956 down to some other number, and I have forgotten the year you have used, we have found since then that the 992,000 was an exaggeration of the true facts.

Mr. Dingell. Are you saying at that point there was an overestimation of the population?

Dr. Harry. Yes; this was an overestimation and the true value is close to 560,000.

Mr. Dingell. Let me stop you at that particular point. How can you make a mistake? You are overestimating the population by a magnitude of almost two.

Dr. Harry. That is right, and the reason was that it was determined that the method of marking the animals by tagging with a clip on the flipper was causing an additional mortality. Because of the way the population dynamics works out, you do not get as many tags back and because of that, you get an inflated population estimate. As soon as the scientists became aware of this, they immediately began to develop a different method.

Mr. Dingell. When did this happen, what year did this happen?

Dr. Harry. What year?

Mr. Dingell. What year did this reassessment of the population of the seals take place?

Dr. Harry. This was about 1960 or 1961.

Mr. Dingell. 1961?

Dr. Harry. 1960 or 1961 when the scientists first realized that the estimates were too high and began to develop other methods of estimating the number of pups.

Mr. Dingell. You are telling us about 1961 they came to the conclusion that you were having an overlarge estimate of births.

Dr. Harry. That the estimates were too large.

Mr. Dingell. And I note in 1961 you were killing 43,760 seals and in 1962, the year after you came to this conclusion that you were not having as many births by a magnitude of two, you killed 43,952 females.

It looks to me like you adjusted for your error by increasing the number of females killed by about 200.

Dr. Harry. I said the scientists first began to be aware of this about 1961, and it took some time to develop a new method and check to see whether it was correct or incorrect.

A new method is being used now, a different method, and this corrects for these errors.

Instead of tagging with the associated mortality, we are continuing to tag at some times, in some years, but in most years instead of tagging and waiting for recoveries 3 or 4 years later, and this is what the problem was, we are now shearing the tops of the heads of the fur seals, and then making population estimates immediately during the year of marking, thus avoiding the mortality factor I previously mentioned.

This is how it was determined after 1961 that, indeed, these estimates were too high, were inflated estimates.

Mr. Dingell. Well, even after that when you found that you had half as many pups as you thought the following year, and I assume this represents the time which you completed some adjustments in your figures, you were still taking 16,000 females.

Dr. Harry. As Mr. Pollock said, the reduction was purposeful because the scientists of all four countries agreed there were too many. It was a purposeful reduction.

Mr. Dingell. It was a purposeful reduction based on an overestimate by two; the year you found out you took 200 more than you did, the year before, and I assume you must have corrected.

The following year you took 16,000. The next year you took 10,000.

I would like you to submit to me the average pelt prices for the years from 1956 to 1970. I would like to compare that against the females killed. I have a notion that the biological judgment was not as significant perhaps as the price of pelts.

Mr. Kirkness. There was no market for females when first harvested, because there was no process developed.

Mr. Potter. When did the market for females first open up?

Mr. Kirkness. After we started to harvest females, then the process was developed, and it was some time in the early 1960's before a product was developed that had public acceptance.

Mr. Dingell. I am absolutely hard put to believe that you cannot tan a female skin as successful as you can a male.

Mr. Kirkness. You can market it, but the process used for males was not usable on the females for the market at that time.

Mr. Potter. So they just killed the females and threw them back into the ocean?

(Mr. Kirkness indicated agreement.)

Dr. Harry. This was not during the entire period, 1 or 2 years, and I forget exactly which.

Mr. Dingell. When did you develop the process for female hides? When was that developed?

Mr. Kirkness I will supply that for the record.

Mr. Dingell. I think that will be very helpful.

(The information referred to follows:)

Development of Process for Marketing Female Fur Sealskins

The first female fur sealskins were auctioned at St. Louis, Missouri, in October of 1960 under the trade name LAKODA.

AVERAGE AUCTION PRICE FOR MALE AND FEMALE SEALSKINS FROM 1950–70

Year	Male	Female	Year	Number of females taken
1950	$95.52	----------	1950	----------
1951	89.76	----------	1951	----------
1952	104.99	----------	1952	----------
1953	71.73	----------	1953	----------
1954	76.92	----------	1954	----------
1955	94.14	----------	1955	----------
1956	100.96	----------	1956	26,977
1957	80.23	----------	1957	47,423
1958	78.70	----------	1958	31,059
1959	101.49	----------	1959	27,634
1960	103.00	$36.05	1960	4,296
1961	87.31	26.52	1961	13,875
1962	106.97	46.36	1962	24,455
1963	117.12	41.86	1963	42,976
1964	95.50	60.49	1964	15,983
1965	110.07	71.72	1965	9,804
1966	116.96	70.03	1966	----------
1967	85.26	65.64	1967	10,034
1968	102.42	52.69	1968	13,095
1969	90.28	45.11	1969	229
1970	78.10	----------	1970	----------

Mr. DINGELL. You said it was in the early 1960's, but it was not before 1959?

Mr. KIRKNESS. I do not think so.

Mr. POTTER. Let me ask you a few questions about the size of the herd.

I gather from reading the material that you very kindly furnished me with, that essentially you try to maintain estimates of the size of the herd on the basis of how many pups are born per year; is that correct?

Dr. HARRY. Yes; the basis of the returns, how many returns you get from a given pup population, and you adjust this to get the maximum.

Mr. POLLOCK. You have a very high mortality rate in your first and second years.

Mr. DINGELL. Do you have any population goal at all for seals on the total population from 1956 to 1970?

Dr. HARRY. Yes; I do not have them all in front of me.

Mr. DINGELL. Will you submit them to us for the record, please, and give us what you have here?

Dr. HARRY. We do have them, and they are easily worked out. I do not happen to have them before me right now. I will supply them to you, Mr. Chairman.

(The information referred to follows:)

POPULATION GOAL OF FUR SEAL MANAGEMENT PROGRAM

The fur seal management program, as developed in accordance with the Fur Seal Treaty, is to achieve the maximum sustainable yield (m.s.y.). At this time we do not know precisely what m.s.y. is but we have made good estimates and through our management of the fur seal population we are attempting to give more precision to our estimates. Our initial estimate in 1955 of the m.s.y. was approximately 415,000 pups per year. We then began a herd reduction program to reduce the population to the number of females that would produce approximately that number of pups. A subsequent estimate of the m.s.y. required a recruitment of about 480,000 pups per year. That estimate was based, in part, on data which were later found to be invalid and the 480,000 figures was rejected. The best present estimate of the m.s.y. is for a pup production of about 400,000 pups per year. During the course of the herd reduction program the annual production of pups was lowered to around 375,000 pups per year. This level was maintained for several years in order to relate pup production at this level to subsequent harvest of males.

After several years of obtaining information pertaining to the relationship between pup production at this level and subsequent harvest, in 1968 a decision was made by the scientists of the Fur Seal Commission to end this phase of the experimentation and to allow the number of breeding females to increase in order to provide a pup production somewhat above 400,000 pups per year.

Our present program is designed to achieve this goal and since 1969 females have not been harvested commercially. However, the fur seal population cannot respond immediately to changes in harvesting procedures. Females do not reach full productivity until they are about eight years of age, so the complete effect of the ban on killing females is not expected until the mid-1970's.

Mr. POTTER. Referring to your 1969 annual report for the Pribilof Islands program, I see that you believed in 1969 that, and I quote:

> The herd can be maintained at this optimum, that is to say, the maximum sustainable yield point, by keeping a male-female ratio which will produce around 500,000 pups each year.

I gather you have backed off that now, and you are now estimating that the optimum point is at about 400,000 pups per year, plus or minus 50,000.

Dr. HARRY. That is the figure we are using now, about 400,000 plus or minus 50,000.

Mr. POTTER. Considering that you have not had more than 500,000 pups since 1960, and I am wondering about that, and that the number of pups born in 1970 (the most recent year for which we have figures) is 306,000, it looks as though you indulged in a little overkill.

Mr. DINGELL. I would like to just give you a litle bit of comparison. This is kind of hard, because I do not have this in graphic form, but let us try and get this down here.

Let us take the last year. You had 438,000 in 1961. That is under our optimum population, but you killed 43,849 females that year.

Now, in the next year you had 362,000, in 1962, and I note in 1962 you killed 43,760 females.

Now, how do you claim this is good management?

Let us come back here just a little bit to 1963.

In 1963, you had 343,000 pups; and in 1963, I note you killed 43,952.

Now, going over to 1964, you had 370,000 pups born, and in that year you killed 16,000 females.

Now, you were well under your optimum population levels, according to your figures.

In 1965, you bred 370,000, and you dropped the number of females killed to 10,000, even though you had an increase in the number of population, although they were not up to the optimum levels.

Now, I am finding myself hard put to understand why this number of female hides ought to be rotted and fed to fish under these circumstances.

In 1966, you had 347,000 pups, and you only killed 391 females.

Now, that apparent wisdom had begun to prevail downtown, but then I note here in 1967 you do not have figures on the total number of pups, but you killed 10,000 females.

Here, you are killing 10,000 females without any figures on the birth.

The same thing was true in 1968. You killed 13,000. Apparently, some kind of wisdom dictated that you ought to kill 3,000 more, even though you did not know the number of pups born.

Then in 1969 you had 304,000, and you did not kill but 230 females.

In 1970, you had 306,000 pups born, and you killed 121 females.

How do you justify this against the optimum which is 500,000 pups?

In some years you are killing the females without giving us a knowledge of pups born, and in some instances you are doing it on a basis of figures on the magnitude of 2 to 20, and then you are doing it without the utilization of the female hides.

I need some justification for this as a good conservation practice, and I am waiting to hear it.

Dr. HARRY. Again, I think with regard to the hides, most of these were used after the early period.

Mr. DINGELL. Let us assume for the sake of the argument a certain number of these were used.

According to your own good management practices and your own reports here, you are telling us that you are killing females when you had not yet achieved your optimum population number.

Dr. HARRY. During the period from 1956 through 1963, the objective was to reduce the stock of fur seals, and during this period the number of pups did come down, and probably at the end of that period was close to, or perhaps a little below, the optimum number; probably a little bit below.

On the optimum number it seems to me we estimate the optimum at 400,000 plus or minus 50,000.

We were a little below that, and that is true. Then in 1964 the decision was made to attempt to hold the stock at that population because we needed information on how the herd responded at that population level.

Mr. DINGELL. You mentioned that you have come to a lower figure in 1969, and you said the optimum population of pups was 500,000. Have you been going up and down on that figure?

Dr. HARRY. The best figure we have now is about 400,000. I am not sure where the 500,000 came in.

Mr. DINGELL. Your figure is 500,000 here in the year 1969. Have you gone down since then?

Maybe I ought to ask you to send to us the optimum population level, in the opinion of your agency. Maybe that has been going up and down also.

Dr. HARRY. There have been some changes. As we get additional information, of course, these things do change. Our best estimate is about 400,000.

Mr. DINGELL. Just a minute. You said, in 1969, 500,000. When did you change that to 400,000?

Dr. HARRY. I do not know where the 500,000 came from.

Mr. DINGELL. I do not know either. Maybe you folks down there would do well to read your own reports.

This comes from the annual report of sealing operations, 1969, Pribilof Islands, Alaska, prepared by the staff of the marine mammal resource program, dated December 31, 1969.

This is stamped administrative use only. I hope that does not classify it so you do not get the wisdom of your staff.

Dr. HARRY. Well, I cannot reply to that. Our best estimate, based on the best data that we have now is 400,000. It was probably a typographical error.

Mr. DINGELL. I will let that pass for the moment, even when you take plus or minus 50,000, by the way I must tell you plus or minus 50,000 is sloppy administration.

Dr. HARRY. With an animal population it is difficult to get precise figures, for whales, fur seals, or almost anything.

Mr. DINGELL. These are not whales, and they are seals, and you are counting them on the ground.

Dr. HARRY. If we could count them we would have precise numbers, but there are so many of them that we have to estimate it.

Mr. DINGELL. Interior count ducks down to a few thousand, and they have the whole of North America.

All you have to do is chase these things around the Pribilofs and count them.

Mr. POLLOCK. Mr. Chairman, these are Interior's figures we are talking about.

Mr. DINGELL. NOAA has been in existence 11 months.

Dr. HARRY. We believe that the number of pups now is below the optimum and, of course, the harvest of the females was stopped in 1968.

In 1969, 1970, and 1971 there has been no harvest of females.

We have been getting an unusual situation in that it appears that something is happening to their survival in the ocean. In a previous period when the herd was about the size it is now the population was increasing in numbers at a rapid rate. We got many more returns of fur seals into the harvest than we are getting now, so it appears that something is happening in the oceans to cause a greater mortality while they are at sea before they return.

Mr. DINGELL. Now, you are coming to a point that is precisely the same as was made by another witness at a time earlier.

That witness indicated that something bad is happening to the survival rate of the Pribilof seal herds, and he indicated that it was this year.

Apparently there has been something happening for a little while.

Do you have any knowledge of what it is, is it pollution, or what is it?

Dr. HARRY. We do not know precisely what it is.

We do know it is something that is happening in the oceans. It might be a temporary weather condition, or a temporary environmental condition that will correct itself.

There could be something else, such as pesticides for example, working on the psysiology of these things, or other contaminants, or it could be a combination of things.

Mr. DINGELL. Do yo have any research program to find out what is causing this?

Dr. HARRY. Practically about all we can do to determine what is happening or what the situation will be, is just what we have done. The only way we can regulate it practically is to eliminate the kill of females. If it is a temporary thing, then in a number of years this relationship will change.

Mr. DINGELL. Any halting of the harvest of females will not tell you what is causing the death on the high seas.

Mr. POLLOCK. I understand the natural enemies of the fur seal are the killer whales, and maybe sharks, you know, and it could be that maybe there is a prevalence of them in the particular areas where they have been.

I think our figures generally show ballpark estimates of something like a mortality of 50 percent in the first year for the pups, and about 30 percent in the second year, which is really quite high.

Dr. HARRY. We do have ideas for attempting to determine whether, for example, some of these contaminants may be affecting the physiology.

For example, from the information that we have just from our sampling program at sea, we are attempting to correlate the amounts of contaminants with pregnancy rates.

Mr. DINGELL. Are you saying that you are doing this at sea?

Dr. HARRY. Yes.

Mr. DINGELL. Mr. Pelly, did you have a question?

Mr. PELLY. Well, I simply wanted to ask to have inserted in the record with your approval, Mr. Chairman, a statement having to do with what one of the witnesses said last week; namely, that he would be willing to see the management program for the seal herds eliminated, and leave it to the whims of nature.

Now, what I want to know is what do the scientists and the experts have to say about the need for control, or what would happen if we let it return to the whims of nature, if we did not have this program going.

I do not want to take your time. It is late. But I thought, perhaps, Mr. Pollock, you could get some statements together from what our scientists or experts believe in this regard.

Mr. POLLOCK. I am looking, Mr. Pelly.

Mr. PELLY. On the floor, someone may want to eliminate the whole program, and I would like to know whether it would be a good thing or bad thing for you who have studied the matter, what you scientists think.

Mr. POLLOCK. Mr. Pelly, I am looking for a paper that might give part of a quick answer.

Mr. PELLY. I would just as soon not have a quick answer. I would like an authoritative answer, and would like it supplied for the record.

Mr. POLLOCK. The thing I would point out, and I do not see the document here, is that the English have a very serious problem with the herds where they have not made conservation harvests on their seals, and they are very overpopulated with many, many pups. And many of the adults have been dying from disease, and they are now embarking on a program of making a very serious cut in the total population.

I do not find that particular document.

Mr. DINGELL. You are referring to an article that appeared in the Daily Telegraph on the killing of 3,000 seals?

Mr. POLLOCK. Yes.

Mr. DINGELL. Without objection, the Chair will insert that in the record.

(The information follows:)

[The Daily Telegraph (London, England) Tuesday, Aug. 17, 1971]

NATIONAL TRUST WILL KILL 3,000 SEALS ON FARNE ISLANDS

(By Clare Dover, Science Staff)

Three thousand grey seal calves and their mothers are to be killed over the next three years on the Farne Islands, off the North-East coast, the National Trust has announced.

The culling will start in the autumn of next year.

The decision has been made reluctantly because the seals are overcrowded and living in "squalor."

Seal calves become lost in the crowd and die of malnutrition, and adult seals have become aggressive.

The shooting, which will take place during the next breeding season, will reduce the seal colony to half its present size of 7,000. The seals will be shot through the head with high-powered rifles.

STARVED TO DEATH

The colony has been investigated by Mr. Nigel Bonner, of the Seals Research Unit of the Natural Environment Research Council, and Mrs. Grace Hickling, of the Northumberland, Durham and Newcastle-upon Tyne Natural History Society.

They say that 21 per cent of last year's Farne Islands seal calves died, largely because they lost contact with their mothers and starved to death. The calves could not obtain milk, which forms their only food for the first few weeks of life.

"The general picture now presented by the breeding grounds on the Farne Islands at the height of the season is one of squalor. The carcasses of dead calves lie scattered on the mud and starving calves, many of them covered in purulent wounds inflicted by aggressive cows, lie moribund or suck weakly at each other.

AREAS OF QUAGMIRE

Wallowing of seals has converted whole areas into "muddy quagmires devoid of vegetation." Heavy rain then washes away the mud, causing erosion of the relatively fragile soil cap.

In 1956, about 750 seal calves were born at the Farne Islands. Each succeeding year, the number has risen, until 1,956 were born last year. There is "no evidence" that the numbers will stabilise if nature is allowed to take its course.

The Council of the National Trust says it recognises that its decision will cause distress to some members. The Trust has repeatedly refused previous requests from the Government for a cull in the interests of the fishing industry.

Mr. Dingell. Mr. Rountree?

Mr. Rountree. Thank you, Mr. Chairman.

Mr. Pollock, could you submit for the record a breakdown, either statistical or by whatever means you feel best, as to the economic impact that any ban on the import of seals or ocean mammal products will have in regard to the United States?

If you have any figures pertaining to international trade, our commitments under that and the impact it will have in regard to the other European nations, this would be helpful and give us a better deal of the situation.

Mr. Pollock. You mean the economic impact on the importation of all mammals?

Mr. Rountree. Because we have, in some of the legislative proposals, this type of a concept, banning the importation of ocean mammals and their byproducts.

I think it would be helpful in analyzing the pros and cons of this particular approach to see what the Department of Commerce can give us in the way of data.

That is the only thing I have, Mr. Chairman.

Mr. Dingell. I think the information counsel has requested will be very helpful, and it will be inserted at this point in the record.

Mr. Pollock. May I inquire, Mr. Chairman, I finally found my copy of the London Telegraph article, do you have that?

Mr. Dingell. Yes; I do. That has already been put in the record.

You are directed to supply the information that Mr. Rountree has requested, and it will appear in the record at this point.

(The information follows:)

Economic Impact of the Prohibition of Importation of Marine Mammal Products to the United States

The economic impact of the prohibition of the importation of marine mammal products on U.S. firms relying on these products is difficult to estimate because of the unavailability of data. Quantity and value of imported marine oils are reported here as follows in 1970:

TSUS CATEGORIES OF MARINE MAMMAL OILS, 1970

Item and article	Quantity	Value
177.3 —Seal oil	370, 150	$38, 338
177.32—Sperm oil, crude	49, 629, 135	5, 246, 835
177.34—Sperm oil, other than crude	5, 978, 543	677, 395
177.36—Whale oil, except sperm	1, 880	2, 036
177.40—Other marine mammal	36, 851	26, 077
494.0600—Spermacetic wax		56, 000
Total	56, 016, 559	6, 046, 681

In addition to the marine mammal oil products listed above, there are certain "basket" categories which may include other marine mammal products. These are as follows:

TSUS "BASKET" CATEGORIES WHICH MAY INCLUDE WHALE MEATS, 1970

Item	Articles (basket category)	Quantity (pounds)	Value
106.7000	Containing whale meat	691,913	$167,428
196.7500	do	677,467	279,037
107.7000	do	4,975,429	1,265,621
184.5510	do	48,126,380	8,744,562
184.5530	do	502,984,000	37,712,548
184.5540	do	948,000	58,121
	Total	558,403,189	48,227,317

TSUS "BASKET" CATEGORIES WHICH MAY INCLUDE SEALSKIN, 1970

Item and article	Quantity (pounds)	Value
123.0085—Containing sealskins		$133,277
124.1060—Containing sealskins		676,511
124.4000—Containing sealskins		1,981,370
124.8000—Containing sealskins		744,089
Total		3,535,247

The "basket" categories listed above include other products along with marine mammal products (see attached copy of pages from the Tariff Schedules of the United States Annotated 1971). Identification of an individual product making up these categories is not available and therefore the proportion of these values made up of marine mammal products is not available. Other marine mammal products which may appear in other "basket" categories are considered to be of minimal importance.

The best estimate based upon available information is that the declared total value of marine mammal imports to the United States falls between $10 million $15 million per year. It is not known what the economic impact of the prohibition of these imports would have on the importing firms involved since the magnitude of their total business and the proportion made up of imported marine mammal products is not known.

TARIFF SCHEDULES OF THE UNITED STATES, ANNOTATED (1971)

FOR USE IN CLASSIFICATION OF IMPORTED MERCHANDISE FOR RATE OF DUTY AND STATISTICAL PURPOSES

SCHEDULE 1.—ANIMAL AND VEGETABLE PRODUCTS

PART 2.—MEATS

Item	Stat. suffix	Articles	Units of quantity	Rates of duty 1	 2

SUBPART B.—MEATS OTHER THAN BIRD MEAT

Subpart B headnote

1. For the purposes of this subpart: (a) The term "fresh, chilled, or frozen" covers meats even though completely detendonized and deboned, but does not cover meats which have been prepared or preserved; and (b) the term "prepared or preserved" covers meats even if in a fresh, chilled, or frozen state if such meats have been ground or comminuted, diced or cut into sizes for stew meat or similar uses, rolled and skewered, or specially processed into fancy cuts, special shapes, or otherwise made ready for particular uses by the retail consumer; and also covers meats which have been subjected to processes such as drying, curing, smoking, cooking, seasoning, flavoring, or to any combination of such processes.

Meats (except meat offal), fresh, chilled, or frozen, of all animals (except birds):

SCHEDULE 1.—ANIMAL AND VEGETABLE PRODUCTS—Continued

PART 2.—MEATS—Continued

Item	Stat. suffix	Articles	Units of quantity	Rates of duty	
				1	2
106.10		Cattle		3¢ per lb.	6¢ per lb.
		Beef, with bone:			
	20	Fresh or chilled	Lb.		
	40	Frozen	Lb.		
	60	Beef, without bone	Lb.		
	80	Other (veal)	Lb.		
106.20		Goats and sheep (except lambs)		2.5¢ per lb.	5¢ per lb.
	20	Mutton	Lb.		
	40	Goat meat	Lb.		
106.30	00	Lambs	Lb	2¢ per lb.	7¢ per lb.
106.40		Swine		0.7¢ per lb.	2.5¢ per lb.
	20	Fresh or chilled	Lb.		
	40	Frozen	Lb.		
		Game animals:			
106.50	00	Deer (except reindeer)	Lb	0.3¢ per lb.	6¢ per lb.
106.55	00	Other	Lb	3.5¢ per lb.	6¢ per lb.
106.60	00	Frogs	Lb	3% ad val.	10% ad val.
106.65	00	Horses (except meat packed in immediate containers weighing with their contents less than 10 pounds each)	Lb	Free.	Free.
		Other:			
106.70	00 +	Valued not over 30 cents per pound	Lb	3¢ per lb.	6¢ per lb.
106.75	00	Valued over 30 cents per pound	Lb	10% ad val.	20% ad val.
		Edible meat offal, fresh, chilled, or frozen, of all animals (except birds):			
106.80	00	Valued not over 20 cents per pound	Lb	0.6¢ per lb.	6¢ per lb.
106.85	00	Valued over 20 cents per pound	Lb	3% ad val.	30% ad val.
		Sausages, whether or not in airtight containers:			
		Pork:			
107.10	00	Fresh	Lb	1.9¢ per lb.	3.25¢ per lb.
107.15	00	Other	Lb	1.625¢ per lb.	3.25¢ per lb.
107.20	00	Beef, in airtight containers	Lb	9% ad val.	30% ad val.
107.25		Other		6% ad val.	20% ad val.
	20	Beef	Lb.		
	40	Other	Lb.		
		Pork, prepared or preserved (except sausages):			
107.30		Not boned and cooked and packed in airtight containers.		2¢ per lb.	3.25¢ per ob.
	20	Hams and shoulders	Lb.		
	40	Bacon	Lb.		
	60	Other	Lb.		
107.35		Boned and cooked and packed in airtight containers.		3¢ per lb.	3¢ per lb.
		Hams and shoulders:			
	15	In containers holding less than 3 pounds.	Lb.		
	25	In containers holding 3 pounds and over.	Lb.		
	40	Bacon	Lb.		
	60	Other	Lb.		
		Beef and veal, prepared or preserved (except sausages):			
		Beef or veal, cured or pickled:			
107.40	00	Valued not over 30 cents per pound	Lb	3¢ per lb.	4.5¢ per lb.
107.45	00	Valued over 30 cents per pound	Lb	10% ad val.	30% ad val.
107.50		Beef in airtight containers		9% ad val.	30% ad val.
		Corned beef:			
	20	In containers holding not more than 2 pounds.	Lb.		
	40	In containers holding more than 2 pounds.	Lb.		
		Other:			
	60	In containers holding not more than 2 pounds.	Lb.		
	80	In containers holding more than 2 pounds.	Lb.		
		Other:			
107.55	00	Valued not over 30 cents per pound	Lb	3¢ per lb	6¢ per lb.
107.60		Valued over 30 cents per pound		10% ad val	20% ad val.
	20	Prepared, whether fresh, chilled, or frozen, but not otherwise preserved.	Lb		
	40	Other	Lb		
		Other meats and edible meat offal, prepared or preserved:			
107.65	00	Frog meat	Lb	7% ad val	20% ad val.
		Other:			
107.70	00	Valued not over 30 cents per pound	Lb	1.8¢ per lb	6¢ per lb.
107.75		Valued over 30 cents per pound		6% ad val	20% ad val.
	20	Lamb or mutton (excluding offal)	Lb		
	40	Mixture principally of beef and pork (excluding sausages and mixtures principally of pork or beef offal).	Lb		
	60	Other	Lb		
107.80	00	Extract of meat, including fluid	Lb	2¢ per lb	15¢ per lb.

SUBPART C.—ANIMAL FEEDS

Subpart C headnotes

1. For the purposes of this subpart: (a) the term "animal feeds, and ingredients therefor" embraces products chiefly used as food for animals, or chiefly used as ingredients in such food, respectively, but such term does not include any product provided for in schedule 4 (except part 2E thereof) or schedule 5 (except part 1K thereof); and (b) the terms "mixed feeds" and "mixed-feed ingredients" in item 184.70 embrace products which are admixtures of grains (or products, including byproducts, obtained in milling grains) with molasses, oil-cake, meal, or other foodstuffs, and which consist of not less than 6 percent by weight of the said grains or grain products.
2. None of the provisions of this subpart cover fertilizer or fertilizer materials (see part 1I of schedule 4.)

Item	Stat. suffix	Articles	Units of quantity	Rates of duty	
				1	2
184.10	00	Bran, shorts, and middlings obtained in milling grains	S. ton	Free	10% ad val.
184.20	00	Beet pulp, dried	S. ton	34¢ per short ton.	$4.45 per short ton.
184.25	00	Brewers' and distillers' grains and malt sprouts	S. ton	22¢ per short ton.	$4.45 per short ton.
184.30	00	Hay	S. ton	12¢ per short ton.	$5 per short ton.
184.35	00	Straw (except flax straw and rice straw)	S. ton	10¢ per short ton.	$1.50 per short ton.
184.40	00	Grain hulls, ground or not ground	Cwt,	Free	10¢ per 100 lbs.
		Grain or seed screenings, scalpings, chaff, or scourings ground or not ground:			
184.45	00	Of flaxseed	S. ton	Free	10% ad val.
184.47	00	Other	S. ton	Free	10% ad val.
		Soy bean and other vegetable oil cake and oil-cake meal:			
184.50	00	Linseed oil cake and oil-cake meal	S. ton	0.15¢ per lb	0.3¢ per lb.
184.52		Other		0.3¢ per lb	0.3¢ per lb.
	40	Cottonseed oil cake and oil-cake meal	Lb.		
	70	Other	Lb.		
		Tankage; dead fish and whales; fish and whale scrap, meal and solubles; homogenized condensed fish and whales; all the foregoing not fit for human consumption:			
184.54	00	Cod-liver solubles	Lb	6% ad val	20% ad val.
184.55		Other		Free	Free.
	10	Fish or whale meat in airtight containers	Lb.		
	20	Tankage	S. ton		
	30	Scrap and meal	S. ton		
	40	Solubles	S. ton		
	50	Other	S. ton		

PART 5.—HIDES, SKINS, AND LEATHER; FURSKINS

Item	Stat. suffix	Articles	Units of quantity	Rates of duty 1	Rates of duty 2
123.00		Skins bearing wool or hair of a kind described in subpart C of part 1 of schedule 3, raw or not dressed, if suitable for use as furs without the removal of the wool or hair from the skins (except removal resulting in an unsought residve of wool or hair to processing of the skins for use as furs) and imported to be so used.		Free	Free.
		Whole skins of lamb and sheep:			
	40	Caracul, Shiram, Krimmer, Broadtail, Mosul, Bessarabian, Astrakhan, S.W. African lamb, cross and half Persian, and other types of Persian lamb.	No.		
	50	Other	No.		
	85	Other	X		
123.50	00	Furskins of the silver, black, or platinum fox (including those of any fox which is a mutation, or type developed, from silver, black, or platinum foxes), whether or not dressed.	No.	22% ad val	50% ad val.
		Other furskins, raw or not dressed, or dressed:			
124.10		Raw or not dressed		Free	Free.
		Whole skins:			
	05	Beaver	No.		
	07	Cheetah	No.		
	10	Fox (other than silver, black, or platinum, including mutations therefrom)	No.		
	15	Hare	No.		
	16	Jaguar	No.		
	17	Leopard	No.		
	18	Lynx	No.		
	20	Marten	No.		
	35	Mink, except "Japanese mink"	No.		
	30	Ocelot	No.		
	35	Otter	No.		
	40	Rabbit	Lb.		
	45	Sable	No.		
	50	Squirrel	No.		
	57	Other	No.		
	60	Other	X		
		Dressed:			
		Not dyed:			
124.20	00	Plates, mats, linings, strips, crosses, or similar forms	X	10% ad val	35% ad val.
		Other:			
124.25		Beaver, caracul and Persian lamb, chinchilla, ermine, fisher, fitch, fox, kolinsky, leopard, lynx, marten, mink, nutria, ocelot, otter, pony, raccoon, sable, and wolf		3% ad val.	25% ad val.
		Whole skins:			
	20	Fox	No.		
	40	Mink	No.		
	60	Persian lamb and caracul	No.		
	80	Other	No.		
	90	Other	X		
124.30	00	Rabbit	No	6% ad val	25% ad val.
124.40	00	Other	X	6% ad val	25% ad val.
		Dyed:			
124.60	00	Plates, mats, linings, strips, crosses, or similar forms	X	12% ad val	40% ad val.
		Other:			
124.65		Beaver, caracul and Persian lamb, chinchilla, ermine, fisher, fitch, fox, kolinsky, leopard, lynx, marten, mink, nutria, ocelot, otter, pony, raccoon, sable, and wolf		4.5% ad val	30% ad val.
		Whole skins:			
	30	Fox	No.		
	40	Mink	No.		
	60	Persian lamb and caracul	No.		

Mr. Potter. Mr. Pollock, have you all done any research on the relationships between the size and the health of the Alaska fur seal population and what is generally going on in the Bering Sea ecosystem?

This is, I believe, a rather unique system.

Mr. Pollock. Are you talking about the fur seals now?

Mr. Potter. Yes.

Mr. Pollock. They migrate all the way down.

Mr. Potter. I know that.

Mr. Pollock. All the way down the western coast of the United States and beyond.

Mr. Potter. When they come back to the rookeries, they are tied to the rookeries for a period of about 2 months?

Mr. Pollock. Well, it varies. The older harem bulls come in first, in the late spring, followed by the females. The younger males come in later.

Mr. Potter. There is still a long space of time that they are resident in the Bering Sea.

There is some indication that the increased herring fishery in the Bering Sea is having a substantial effect on the health of the fur seal population because it is making it harder and harder for the females get enough of food within a few days of the islands, so the pups are starving.

Dr. Harry. We do have a little bit of information on this and, of course, there have been tremendous takes of fish from the Bering Sea, and this is a changing situation.

Mr. Dingell. I am curious if this is not a problem of overfishing.

Dr. Harry. For the fur seals?

Mr. Dingell. Yes.

Dr. Harry. We were curious about this also and, over a period of years, have weighed pups to see if there is any obvious difference in the weight of them. In other words, are they really going hungry?

Also, we have been checking the mortality of pups on land before they go to sea, to see if there has been any change. And there has been nothing obvious shown up in either.

They are not skinnier. The good condition of the pups is an indication of an adequate milk supply which, in turn, indicates that the females are getting an adequate supply of food in the vicinity of the islands. There has not been any great change in the mortality of pups on land in recent years. As a matter of fact, if anything, it may have dropped a little.

Mr. Dingell. Have you done any tests on heavy metals or pesticides in the carcasses of seals that have been sacrificed out there?

Dr. Harry. Yes.

Mr. Dingell. Have you seen any changes in DDT, cadmium, or lead, or any of the other heavy metals?

Dr. Harry. We just got some cadmium analyses back and they had a fair amount of it.

We have not had a chance to look at it. It is brandnew data.

We have a good deal of old data on mercury and DDT, and fur seals have a good charge of both of these. As a matter of fact, most of the marine mammals do today.

Mr. Dingell. Are you doing the study on a fairly regular basis?

Dr. HARRY. Yes; we have been doing this fairly regularly.

We have only determined this last year. The first time this problem came up was last year so there is not a big backlog of data. Nobody knew there was a problem until we decided maybe this is something we had better analyze, and we analyzed the fur seals for mercury, and they had a considerable amount especially concentrated in the liver.

And this is the first indication of such a thing in this mammal.

Mr. DINGELL. How about the heavy metals, generally?

Dr. HARRY. Cadmium has shown up in a pretty good charge. DDT and other pesticides are there.

Mr. DINGELL. Would you submit us information on this point?

Dr. HARRY. Yes.

(The information follows:)

RESIDUES FOUND IN SEALS

FEMALE FUR SEALS

Pregnant sample No.	WARF No.	Percent moisture	Percent fat	P.p.m. insecticide (wet basis)					
				DDE	DDD	DDT	Dieldrin	Estimated PCB's	PCB/DDT
24	0071121	7.45	85.9	1.17	0.67	0.74	0.27	2.15	3.00
53	0071122	5.15	93.3	16.00	1.93	2.49	.19	15.5	6.22
66	0071123	5.28	94.0	2.91	1.00	.85	.12	3.88	4.56
145	0071124	7.71	91.6	3.36	.91	.79	.35	3.59	4.54
161	0071125	12.40	82.4	2.31	1.05	.63	.14	2.84	4.51
177	0071126	9.95	85.7	4.99	1.23	.76	.16	3.81	5.01
178	0071127	7.41	89.3	3.80	.74	.98	.28	4.68	4.78
186	0071128	10.10	69.6	9.44	2.70	1.72	.19	7.05	4.10
188	0071129	8.42	89.2	10.92	1.40	1.33	.20	9.98	7.50
236	0071130	8.19	90.4	3.73	1.20	.89	.14	4.55	5.11
240	0071131	8.48	81.0	1.74	.64	.40	.12	1.69	4.23
246	0071132	6.34	93.0	4.86	.48	.68	.06	2.98	4.38
247	0071133	7.06	89.4	3.27	.33	.42	.07	1.36	3.24
250	0071134	5.59	92.6	2.82	.34	.46	.06	1.81	3.93
251	0071135	6.88	89.9	2.84	.28	.43	.07	.81	1.88
255	0071136	6.78	92.5	6.97	1.03	1.15	.16	9.93	8.63
271	0071137	23.50	67.0	.78	.27	.24	.07	.66	2.75

FEMALE FUR SEALS

Sample No.	WARF No.	Percent		P.p.m. insecticide (wet basis)					
		Moisture	Fat	DDE	DDD	DDT	Dieldrin	Estimated PCB's	PCB/DDT
Nonpregnant:									
36	0071138	6.59	91.5	6.04	1.07	0.79	0.42	7.28	9.22
42	0071139	6.21	89.2	1.51	.82	.41	.06	1.27	3.10
101	0071140	17.1	79.3	3.69	1.22	.99	.53	5.90	5.96
111	0071141	14.9	76.8	25.2	1.97	2.12	1.03	18.2	8.58
146	0071142	13.3	79.7	6.20	2.09	1.96	.14	7.59	3.87
149	0071143	9.30	88.2	2.14	1.04	.64	.29	3.37	5.27
198	0071144	9.90	87.4	3.81	1.06	.60	.08	2.79	4.65
218	0071145	8.45	88.3	6.59	.84	1.13	.08	2.48	2.19
256	0071146	8.75	82.6	3.19	.51	.58	.10	1.95	3.36
280	0071147	15.9	81.5	32.1	2.35	2.19	.07	3.44	1.57
282	0071148	28.3	57.9	72.3	2.56	3.28	.05	16.4	5.00
301	0071149	14.6	75.9	10.6	.96	.78	.02	5.55	7.12
303	0071150	5.68	93.8	1.19	.22	.26	.08	.86	3.31
340	0071151	25.2	53.8	13.5	.82	1.06	<.02	7.87	7.42
347	0071152	11.4	85.0	13.6	1.88	1.64	.05	2.95	1.80
352	0071153	19.1	72.3	8.16	.59	.96	.06	2.05	2.14
Aborted:									
253	0071154	8.41	89.4	32.3	2.55	2.52	.09	3.09	1.23
275	0071155	7.17	88.1	18.5	1.64	1.49	.15	2.02	1.36
341	0071156	13.5	78.1	4.46	.57	.49	.04	1.34	2.73
366	0071157	10.8	76.8	19.7	1.27	2.03	.11	18.2	8.97
375	0071158	10.2	78.6	29.0	1.35	1.44	.09	8.97	6.23

MERCURY DETERMINATIONS FOR MALE FUR SEALS COLLECTED ON ST. PAUL ISLAND BY THE BUREAU OF COMMERCIAL FISHERIES, SEPTEMBER 1970

Sample No.	Mercury (p.p.m., wet weight)		Age (years)
	Liver[1]	Muscle[2]	
1	16.0		2
2	7.5		2
3	9.0	0.21-0.19-0.21-0.21	3
4	5.5		3
5	11.5		3
6	11.5	0.22-0.22-0.25-0.22	3
7	Lost		3
8	4.0		2
9	14.5	0.35-0.31-0.31-0.35	3
10	13.5	0.41-0.39-0.37-0.31	2
11	15.5		2
12	5.5		2
13	16.0	0.40-0.38-0.42-0.41	2
14	17.5	0.23-0.26-0.26-0.27	2
15	19.0		2
16	12.0		2
17	14.5		2
18	11.0	0.32-0.31-0.31-0.35	2
19	7.0		3
20	12.5		3
21	11.5	0.21-0.23-0.21-0.19	3
22	12.0		3
23	10.5		3
24	14.0		3
25	8.5		3
26	9.5		3
27	7.0		3
28	8.5	0.21-0.18-0.20-0.17	3
29	5.5		3
30	3.0		3

[1] Results of replicated analyses identical, so single value given here.
[2] 4 replicates.

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RESIDUES IN FISH, WILDLIFE, AND ESTUARIES—ORGANOCHLORINE PESTICIDES IN FUR SEALS

(By Raymond E. Anas[1] and Alfred J. Wilson, Jr.[2]

ABSTRACT

(Samples of liver and brain tissue from 30 northern fur seals (Callorhinus ursinus) and 7 fur seal fetuses that were collected on the Pribilof Islands, Alaska, in 1968 and off the Washington coast in 1969, were analyzed for organochlorine pesticides. These compounds were found in all of the fur seals and in three of the fetuses. Polychlorinated biphenyls (PCB) were not detected. Of 30 samples of liver tissue from the seals, all contained DDE; 21, DDD; 24, DDT; and 3 contained dieldrin. Of the 30 brain samples, all contained DDE: 5, DDD; 4, DDT; and none contained dieldrin. DDE was present in liver tissue from three of the fetuses and in brain tissue from two.)

INTRODUCTION

Pesticides are widespread in the oceans. Organochlorine pesticides have been found in the tissues of marine mammals in Antarctica (1, 4), Scotland (2), Canada (2), and the United States (*A. J. Wilson, Bureau of Commercial Fisheries, unpublished data.*) This report records the amounts of DDE, DDD, DDT, and dieldrin found in the tissues of northern fur seals, *Callorhinus ursinus*, collected on the Pribilof Islands, Alaska, and off the Washington coast.

Thousands of fur seals are taken each year by the United States on the Pribilof Islands, Alaska. The skins are used for fur garments, and the carcasses, minus the blubber, are ground and fed to mink. The liver and meat are eaten by residents of the Pribilof Islands. The U.S.S.R. takes seals on the Commander and Robben Islands, and some seals are taken at sea in research by Canada, Japan, the U.S.S.R., and the United States. Fur seals migrate to the Bering Sea (to return to the Pribilof and Commander Islands) and the Okhotsk Sea (to return to Robben Island) during summer and autumn; they migrate as far south as California and Japan in winter and spring. Fur seals feed principally on small fishes and squids. Killer whales and sharks are probable predators.

SAMPLING PROCEDURES

Samples of liver and brain tissues were collected from fur seals in July 1968 on the Pribilof Islands, and in February and March 1969 off the Washington coast. Samples of blubber were not collected, but the concentrations of pesticides are usually greater in the blubber than in other tissues (2). Brain and liver tissue samples weighing about 10g each were collected from each of 30 seals and 7 fetuses. Tissues were kept frozen from the time of collection until analysis. Seventeen of the seals were animals of known age that had been tagged previously as pups. The ages of the 13 other seals were determined by counting layers of dentine in upper canine teeth. The fetuses were in their fourth month.

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ANALYTICAL PROCEDURES

Liver and brain tissues were analyzed for BHC, heptachlor, aldrin, heptachlor epoxide, toxaphene, methoxychlor, dieldrin, endrin, and the *o, p'* and *p,p'* isomers of DDE, DDD, and DDT. Tissues were thawed and mixed with anhydrous sodium sulfate in a blender. The mixture was extracted for 4 hours with petroleum ether in a Soxhlet apparatus. Extracts were concentrated and partitioned with acetonitrile. The acetonitrile was evaporated just to dryness and the residue diluted from a Florisil column (*3*). The sample was then identified and quantified by electron capture gas chromatography. Three columns of different polarity (DC 200, QF–1, and mixed DC 200 and QF–1) were used to confirm identification. Operating parameters on Varian Aerograph 204 and 610D gas chromatographs were as follows:

Columns: 5′ x ⅛″ (O.D.), pyrex glass, packed with 3% DC–200, 5% QF–1, and a 1 : 1 ratio of 3% DC–200 and QF–1, all on Gas Chrom Q.

Temperature: Detector, 210 C; Injector, 210 C; Oven, 190 C.

Carrier Gas: Prepurified nitrogen at a flow rate of 40 ml/minute.

A few samples were analyzed using thin-layer chromatography. Laboratory tests gave the following recovery rates: *p, p'*-DDE, 80–85%; *p, p'*-DDD (TDE), 82–95%; *p, p'*-DDT, 91–95%; and dieldrin, 85–90%. The lower limit of sensitivity was 0.010 ppm (mg/kg dry weight). Data in this report do not include a correction factor for percentage recovery. Polychlorinated biphenyls (PCB) as reported by Holden and Marsden (*2*) were not detected in these samples.

RESULTS

Some form of pesticide was found in all 30 of the seals examined, and 3 of the 7 fetuses had measurable amounts of pesticide (Table 1). The largest concentration of any pesticide in an individual was in the liver of a male yearling taken on February 20, 1969 (5.1 ppm DDE). Tissue samples from males and females collected in February and March 1969 contained larger concentrations of pesticides, on the average, than those from males collected in July 1968, but some overlap occurred. Of 30 samples of liver tissue from seals other than fetuses, all contained DDE; 21, DDD; 24, DDT; and 3 contained dieldrin. Of the 30 brain samples, all contained DDE; 5, DDD; 4, DDT; and none contained dieldrin. DDE was present in liver tissue from three of the seven fetuses and in brain tissue from two. DDD, DDT, and dieldrin were absent in fetal liver and brain.

TABLE 1.—PESTICIDES IN LIVER AND BRAIN TISSUES OF NORTHERN FUR SEALS

Field No.	Date collected	Age (years)	Residues in p.p.m.[1]							
			DDE		DDD		DDT		Dieldrin	
			Liver	Brain	Liver	Brain	Liver	Brain	Liver	Brain
Immature males:										
US69-76	Feb. 19, 1969	1	1.9	0.34	0.17	0.026	0.28	0.044	0.022	(2)
US69-78	Feb. 20, 1969	1	.20	0.60	.065	(2)	.090	(2)	.015	(2)
US69-82	do	1	5.1	1.7	.47	.077	.38	.087	.091	(2)
US69-85	do	1	.23	.069	.054	(2)	.15	(2)	(2)	(2)
US69-117[3]	Feb. 25, 1969	3	.25	.084	.087	(2)	.068	(2)	(2)	(2)
R-6683[3]	July 2, 1968	3	.075	.019	(2)	(2)	.025	(2)	(2)	(2)
R-8317[3]	do	3	.083	.029	(2)	(2)	.038	(2)	(2)	(2)
R-9514[3]	do	3	.042	.017	(2)	(2)	.031	(2)	(2)	(2)
Q-17766[3]	do	4	.044	.015	(2)	(2)	(2)	(2)	(2)	(2)
Q-19800[3]	do	4	.30	.079	(2)	(2)	(2)	(2)	(2)	(2)
Q-21025[3]	do	4	.068	.019	(2)	(2)	.025	(2)	(2)	(2)
Q-21777[3]	do	4	.061	.023	(2)	(2)	(2)	(2)	(2)	(2)
Q-24993[3]	do	4	.054	.018	(2)	(2)	.021	(2)	(2)	(2)
Immature and nonpregnant females:										
US69-74	Feb. 19, 1969	1	0.16	0.036	0.055	(2)	0.12	(2)	(2)	(2)
US69-75	do	1	.15	.042	(2)	(2)	(2)	(2)	(2)	(2)
US69-81	Feb. 20, 1969	1	.32	.082	.099	(2)	.27	(2)	(2)	(2)
US69-83	do	1	.17	.069	.056	(2)	.12	(2)	(2)	(2)
US69-87	Feb. 21, 1969	1	3.9	1.4	.41	0.16	.36	0.17	(2)	(2)
US69-101	Feb. 22, 1969	1	.65	.17	.066	(2)	.086	(2)	(2)	(2)
US69-103	Feb. 25, 1969	1	.31	.10	.16	(2)	.23	(2)	(2)	(2)
US69-118[3]	do	6	.55	.12	.13	.029	.14	.029	(2)	(2)
US69-88[4]	Feb. 21, 1969	7	.89	.18	.068	(2)	.10	(2)	(2)	(2)
US69-257[3]	Mar. 26, 1969	10	.15	.043	.073	(2)	(2)	(2)	(2)	(2)

Pregnant females:										
US69-45:										
Mother	Feb. 14, 1969	7	0.21	0.071	0.098	0.017	0.073	(2)	(2)	(2)
Fetus [5]			.041	(2)	(2)	(2)	(2)	(2)	(2)	(2)
US69-77:										
Mother	Feb. 19, 1969	5	.32	.060	.055	(2)	.050	(2)	(2)	(2)
Fetus			.047	.030	(2)	(2)	(2)	(2)	(2)	(2)
US69-167: [3]										
Mother	Mar. 9, 1969	9	.11	.050	.051	(2)	(2)	(2)	(2)	(2)
Fetus			(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
US69-193: [3]										
Mother	Mar. 11, 1969	8	.19	.045	.062	(2)	.068	(2)	(2)	(2)
Fetus			(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
US69-200: [3]										
Mother	Mar. 12, 1969	11	.23	.087	.16	(2)	.11	(2)	(2)	(2)
Fetus			(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
US69-201: [3]										
Mother	do	6	.41	.15	.11	(2)	.10	(2)	(2)	(2)
Fetus			.098	.040	(2)	(2)	(2)	(2)	(2)	(2)
US69-247: [3]										
Mother	Mar. 24, 1969	10	.43	.077	.20	(2)	.18	(2)	(2)	(2)
Fetus			(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

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[1] Residues are reported here in parts per million (mg./kg., wet weight).

[2] Not detectable, <0.010 (mg./kg., dry weight).

[3] Known-age seals tagged on Pribilof Islands, Alaska.

[4] Known-age seal tagged on Commander Islands, U.S.S.R.

[5] Fetuses were in their 4th month of development.

ACKNOWLEDGEMENTS

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APPENDIX

CHEMICAL NAMES OF COMPOUNDS MENTIONED IN THIS ISSUE

Aldrin: Not less than 95% of 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4-*endo-exo*-5-8-dimethanonaphthalene.

BHC: 1,2,3,4,5,6-hexachlorocyclohexane, mixed isomers.

γ Chlordane: 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-4,7-methanoindane, gamma isomer.

DDD (TDE): 1,1-dichloro-2,2-bis(*p*-chlorophenyl)ethane; technical DDD contains some *o,p'*-isomer also.

DDE: 1 1-dichloro-2,2-bis(*p*-chlorophenyl)ethylene.

DDT (including its isomers and dehydrochlorination products): 1,1,1-trichloro-2,2-bis (*p*-chlorophenyl) ethane; technical DDT consists of a mixture of the *p, p'*-isomer and the *o,p'*-isomer (in a ratio of about 3 or 4 to 1).

Dieldrin: Not less than 85% of 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,-8,8a-octahydro-1,4-*endo-exo*-5,8-dimethanonaphthalene.

Endrin: 1,2,3,4,10,10 - hexachloro - 6,7 - epoxy-1,4,4a,5,6,7,8,8a-octahydro-1-*endo-endo*-5,8-dimethanonaphthalene.

Heptachlor: 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene.

Heptachlor epoxide: 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro-4,7-methonoindan.

Lindane: 1,2,3,4,5,6-hexachlorocyclohexane. 99% or more gamma isomer.

Malathion: diethyl mercaptosuccinate, 5-ester with 0,0-dimethyl phosphorodithioate.

Methoxychlor: 1 1,1-trichloro-2,2-bis(*p*-methoxyphenyl)ethane.

Methyl parathion: 0,0-dimethyl 0-*p*-nitrophenyl phosphorothioate.

Toxaphene: chlorinated camphene containing 67% to 69% chlorine.

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OCCURRENCE OF PESTICIDES IN WHALES

(By Allen A. Wolman[1] and Alfred J. Wilson, Jr.[2])

ABSTRACT

(*Organochlorine pesticides were found in tissue samples of brain, blubber, and liver from 6 of 23 gray whales,* Eschrichtius robustus, *and in each of 6 sperm whales,* Physeter catodon, *collected near San Francisco, Calif., in 1968 and 1969. Concentrations of DDT or its metabolites ranged up to 0.36 ppm in blubber tissue of gray whales, and 6.0 ppm in blubber tissue of sperm whales. The highest dieldrin concentrations were 0.075 ppm in gray and 0.019 ppm in sperm whales.*)

Residues of the chlorinated hydrocarbon insecticides, DDT and dieldrin, have been found in various forms of wildlife, mainly in fatty tissues (*5, 7*); these

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INTRODUCTION

compounds are resistant to chemical breakdown by digestive and physiological processes in mammals, birds, and fish (*3*). Pesticide residues have been found in blubber, brain, and other body tissues of marine mammals in Antarctica (*4*, *12*) and in gray seals, *Halichoerus grypus;* common seals, *Phoca vitulina;* and harbor porpoises, *Phocoena phocoena*, from the coasts of Scotland (7). In addition, juvenile and adult harp seals, *Phoca groenlandica*, on the Canadian Atlantic coast contained pesticides, principally of the DDT groups (7), as did porpoises examined by Wilson in Florida (*unpublished data*). Anas and Wilson (*1*) found DDT and its metabolites and dieldrin in brain and liver samples from the northern fur seal, *Callorhinus ursinus*. Koeman and van Genderen (*8*) found 9.6 to 27.4 ppm of DDT and 0.07 to 2.30 ppm of dieldrin in harbor seals in the Netherlands.

These chemicals, although they mainly affect the nervous system, may after long-term accumulation cause sterility and mortality in adults or mortality among progeny, as observed in pelicans and cormorants (*2*). They may interfere with steroid hydroxylation, resulting in the lowering of calcium deposition in eggshells (*6*); interact in polyunsaturated fatty acid metabolism, resulting in riboflavin deficiency (*13*); and cause degenerative changes in rat liver tissue (*10*). This report records the amounts of DDT and its metabolites and dieldrin found in the tissues of gray whales, *Eschrichtius robustus*, and sperm whales, *Physeter catodon*.

SAMPLING

Samples of brain, blubber, and liver tissues were collected from 23 gray whales taken during migration seasons in March-April 1968, December 1968-January 1969, and March 1969. Similar samples from six sperm whales were taken during May and November 1968. All of the collections were made off San Francisco, Calif. About 100 g of each tissue was collected from each animal. Tissues were frozen from the time of collection until time of analysis. Maturity and reproductive condition were determined by histological examination of the testes and mammary glands and examination of ovaries for corpora lutea and corpora albicanti.

ANALYTICAL PROCEDURES

Liver, brain, and blubber tissues were analyzed for BHC, heptachlor, aldrin, heptachlor epoxide, toxaphene, methoxychlor, dieldrin, endrin, and the *o,p'* and *p,p'* isomers of DDE, DDD (TDE), and DDT. Tissues were thawed and mixed with anhydrous sodium sulfate in a blender. The mixture was extracted for 4 hours with petroleum ether in a Soxhlet apparatus. Extracts were concentrated and partitioned with acetonitrile. The acetonitrile was evaporated just to dryness and the residue eluted from a Florisil column (*9*). Sample extracts were then identified and quantified by gas chromatographs equipped with electron capture detectors. Column packing and operating parameters were as follows:

Columns: 5′ x ⅛″, glass, packed with 3% DC–200, 5% QF–1, and a 1:1 ratio of 3% DC–200 and 5% QF–1, all on 60/80 Gas Chrom Q.

Temperature: Detector, 210 C; Injector, 210 C; Oven, 190 C.

Carrier: Prepurified nitrogen at a flow rate of 40 ml/minute.

A few samples were analyzed using thin-layer chromatography. Laboratory tests gave the following recovery rates: *p,p'*-DDE, 80–85%; *p.p'*-DDD, 92–95%; *p,p'*-DDT, 91–95%; dieldrin, 85–90%. The lower limit of sensitivity was 0.010 ppm (mg/kg, wet weight). Data in this report do not include a correction factor for percentage recovery. Polychlorinated biphenyls (PCB's) reported by Holden and Marsden (7), were not detected in our samples. All values reported were calculated on a wet weight basis.

DISCUSSION

DDT and its metabolites were found in 4 males and 2 females of the 23 (26%) gray whales examined (Table 1). All four of the whales taken during spring 1968 contained residues at levels ranging up to 0.058 ppm. In contrast, only 2 of 19 whales sampled during the 1968–69 migration contained pesticides, but DDT and its metabolites were about 5 times more concentrated in these 2 whales; the highest level was 0.36 ppm. One male and one female gray whale had trace amounts of DDE in the brain tissue. The liver tissue of all the gray whales was free of pesticides. Dieldrin was found in all the spring 1968 samples but was lacking in the 1968–69 migration series.

Gray whales feed during the summer in the Bering and Chukchi Seas, principally in large areas of shallow water with an abundant benthos. Their food is primarily benthic amphipods, mostly *Ampelisca macrocephala*, in addition to a number of benthic isopods, mysids, mollusks, polychaetes, and hydroids (*14*, *15*). While migrating between their northern summer grounds and their winter calving grounds off Baja California and during their stay on the wintering grounds they eat virtually no food (*11*). Body weight greatly decreases during the migration, resulting in a great use of stored body fat. Because they fast during migration, gray whales undergo considerable physiological stress, which is accentuated in lactating cows, whose calves suckle for about 6 months.

All of the sperm whales sampled contained DDT and metabolites in concentrations ranging from 0.010 to 6.0 ppm (Table 2). All had DDT or its metabolites in each of the three kinds of tissue examined. Concentrations ranged up to 0.12 ppm in brain tissue, 6.0 ppm in blubber, and 0.35 ppm in liver. Dieldrin was found in two samples of blubber taken in May 1968 but was absent in all samples from November 1968.

Sperm whales are in all the world oceans; they feed mainly on squid (mostly the larger species, such as *Moroteuthis robustus* off California), octopuses, and deepwater fishes, such as sharks, skates, hake, and to a lesser extent, rockfish.

In gray whales and sperm whales the concentrations of pesticides were highest in the blubber. Since a relatively high proportion of the body weight of whales is in the form of blubber, the animals may contain high total amounts of pesticides. For instance, the estimated weight of gray whale No. 1969–35 is 14,300 kg. and possible blubber proportion is 29% (*16*), or 4,147 kg. At a concentration of 0.36 ppm DDE in its blubber (Table 1), the whale might carry about 1.5 g of DDE in this tissue.

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TABLE 1.—PESTICIDES IN BRAIN, BLUBBER, AND LIVER TISSUES OF MIGRATING GRAY WHALES

Direticon of migration and season collected	Field No.	Date collected	Length (meters)	Sex	Reproductive condition	Residues in p.p.m. (mg/kg, wet weight)[1]											
						DDT			DDD			DDE			Dieldrin		
						Brain	Blubber	Liver	Brain	Blubber	Liver	Brain	Blubber	Liver	Brain	Blubber	Liver
Northbound: Spring 1968	1968–57	Mar. 11, 1968	10.68	♂	Immature	0	0.026	0	0	0.034	0	0	0.040	0	0	0.051	0
	1968–58	do	11.75	♂	Mature	0	.022	0	0	.034	0	0	.041	0	0	.044	0
	1968–60	Apr. 2, 1968	10.88	♂	Immature	0	.033	0	0	.029	0	0	.046	0	0	.055	0
	1968–64	Apr. 5, 1968	9.40	♀	do	0	.028	0	0	.058	0	0	.046	0	0	.075	0
Southbound: Winter 1968–69	1968–245	Dec. 21, 1968	12.85	♀	Mature	0	0	0	0	0	0	0	0	0	0	0	0
	1968–247	Dec. 22, 1968	11.30	♂	do	0	0	0	0	0	0	0	0	0	0	0	0
	1968–252	Dec. 29, 1968	13.20	♀	do	0	0	0	0	0	0	0	0	0	0	0	0
	1968–256	Dec. 30, 1968	11.85	♂	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–2	Jan. 2, 1969	12.15	♂	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–13	Jan. 5, 1969	13.30	♀	do	0	.13	0	0	.091	0	.011	.30	0	0	0	0
	1969–22	Jan. 7, 1969	11.60	♀	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–23	do	13.40	♀	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–24	Jan. 8, 1969	12.15	♀	do	(2)	0	0	(2)	0	0	(2)	0	0	(2)	0	0
	1969–26	do	11.30	♀	Immature	0	0	0	0	0	0	0	0	0	0	0	0
Northbound: Spring 1969	1969–30	Mar. 2, 1969	11.32	♂	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–31	do	10.92	♂	Mature	0	0	0	0	0	0	0	0	0	0	0	0
	1969–32	Mar. 5, 1969	12.37	♂	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–33	Mar. 9, 1969	11.92	♂	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–34	do	12.44	♂	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–35	Mar. 10, 1969	11.83	♂	do	0	.13	0	0	.19	0	.011	.36	0	0	0	0
	1969–44	Mar. 15, 1969	12.65	♀	do	0	0	0	0	0	0	0	0	0	0	0	0
	1969–45	do	11.93	♀	Immature	0	0	0	0	0	0	0	0	0	0	0	0
	1969–48	Mar. 16, 1969	12.92	♀	do	0	0	0	0	0	0	0	0	0	0	0	0

[1] 0=pesticides not detectable (<0.010 p.p.m.).

[2] Brain tissue not sampled.

TABLE 2.—PESTICIDES IN BRAIN, BLUBBER, AND LIVER TISSUES OF SPERM WHALES

Field No.	Date collected	Length (meters)	Sex	Reproductive condition	Residues in parts per million (mg./kg., wet weight)[1]											
					DDT			DDD			DDE			Dieldrin		
					Brain	Blubber	Liver	Brain	Blubber	Liver	Brain	Blubber	Liver	Brain	Blubber	Liver
1968–119	May 9, 1968	12.19	Male	Mature	0.026	2.6	0.042	0.010	0.83	0.066	0.12	6.0	0.33	0	0.016	0
1968–120	May 15, 1968	14.94	do	do	0	.86	.11	0	.22	.029	.014	.74	.15	0	.019	0
1968–228	Nov. 7, 1968	10.26	Female	do	0	1.2	.044	0	.49	.10	.059	4.0	.35	0	0	0
1968–229	do	10.77	do	do	.013	1.3	0	0	.48	.053	.054	3.3	.23	0	0	0
1968–232	do	11.20	do	do	.014	2.1	.028	.012	.59	.042	.073	4.4	.19	0	0	0
1968–233	do	10.92	do	do	.022	1.9	.016	0	.50	.056	.074	3.3	.18	0	0	0

[1] 0 = not detectable (<0.010 p.p.m.).

MERCURY LEVELS IN HARP SEALS TAKEN FROM GULF OF ST. LAWRENCE

Specimen number	Weight of seal (pounds)	Age of seal	Mercury levels (p.p.m.) Meat	Heart	Flippers	Fat	Liver
Pup:							
No. 1	17½	1 day	0.26	0.16	0.36	----------	0.79
No. 2	20½	do	.19	.11	.18	----------	.47
No. 3	22½	do	.22	.18	[1]	----------	.52
No. 4	19½	do	[1]	[1]	.28	----------	.70
No. 5	23	do	.44	.32	.40	----------	.67
No. 6	21	do	.28	.20	.27	----------	.72
No. 7	23	do	.66	.36	.59	----------	1.37
No. 8	21½	do	.41	.23	.40	----------	1.28
No. 9	20½	do	.18	.09	.18	----------	.56
No. 10	20½	do	.12	.08	.11	----------	.29
Adult:							
No. 1	500	10 years	.40	.30	.44	.35	7.38
No. 2	600	7 years	.19	.04	.24	.04	2.57
No. 3	600	15 years	.45	.18	.51	.05	6.34
No. 4	500	6 years	.20	.14	.37	<.01	8.12
No. 5	500	16 years	.28	.10	.04	.36	3.84
No. 6	650	15 years	.91	.88	1.10	.09	7.17
No. 7	600	10 years	.29	.09	.28	.11	3.70

[1] Results expected Mar. 16, 1971.

Source: Inspection Branch, Department of Fisheries and Forestry, Ottawa, Mar. 15, 1971.

Mr. DINGELL. You can submit us some indication on the year-by-year basis, the best you have.

Dr. HARRY. This is brand new information, we have only had it for a couple of years. I could make one interesting comment about it, if I could, and just take a second about DDT in sea lions.

In California we have a small fur seal population and, along with studies of these animals we are looking at some sea lions. This year we found that there was a high abortion rate among the sea lions. There had been a good number of sea lions aborted in recent years. In testing these sea lions, we found out that those that had aborted had from two to eight times as much DDT as those that had not aborted.

We are not saying this is cause and effect, but it is giving us a little concern.

Mr. DINGELL. Well, the two events are contemporaneous.

Dr. HARRY. We are not sure it is causing the fact, but we are concerned, Mr. Chairman.

Mr. DINGELL. I think further information on that for the record would be very helpful to us.

Mr. POLLOCK. Mr. Chairman, in further response to Mr. Potter's remark, I am sure you are aware of it, but the Interim Convention on the Conservation of the North Pacific Fur Seals has a paragraph in the beginning which says desiring to take effective measures toward achieving the maximum, sustainable productivity of the fur seal resources of the North Pacific Ocean so that fur seal populations can be brought to and maintained at the levels which will provide the greatest harvest, year after year, with due regard to their relation to the productivity of other living marine resources of the area.

I guess the Japanese are very concerned that the fur seals have been taking a lot of salmon.

Mr. PELLY. The Japanese have been taking an awful lot of American salmon, too.

I would be very appreciative if they would show their concern by leaving our salmon alone.

Mr. POTTER. Do you have any information on the extent to which the fur seal poses a substantial hazard to the salmon fishery?

Dr. HARRY. I do not think it poses a substantial hazard to the salmon fisheries.

They do take salmon when they become available.

The fur seal, as you know, migrate along the coast, and if the salmon comes along, they might take it, but our food analysis shows this is not a large component of their diet.

Mr. DINGELL. Principally a herring feeder.

Dr. HARRY. Herring and anchovy.

Mr. DINGELL. The smallest species.

Dr. HARRY. Yes.

Mr. POTTER. I guess we have kept you rather long here this evening, but what troubles me is that what we seem to be doing is increasing the environmental stress on fur seals and all marine mammals from a number of ways: the predator problem is increasing; certainly, the contamination of the system they live in is increasing; the amount of food that they have access to is decreasing.

Mr. POLLOCK. I do not know whether that is correct, Mr. Potter. Is their food supply decreasing?

Dr. HARRY. We are talking about in the Bering Sea where the take of the fish in the Bering Sea has been tremendous.

Mr. DINGELL. And some species have actually been decimated in the Bering Sea by the overfishing problem that we have with the Russians and the Japanese.

Mr. POLLOCK. I am very well aware, but I did not know there was any shortage of food for the fur seals. As Dr. Harry explained the pup mortality on land is not increasing nor is their average weight decreasing.

Mr. POTTER. What this suggests, it would seem to me, is that we have to be increasingly conservative in any action we take that may have any effect on the population levels, where the population levels, for whatever reason, are going down. They are now 60 or 75 percent of what you think they ought to be. What I am suggesting is in that the exercise of discretion, the Secretary should be vigilant to suggest to the members of the North Pacific Fur Seal Convention that we may have to back off and maybe take less seals, if that is what is best for the population—not so much what is best for optimizing the cash return, as what is best for protecting the herds.

Mr. POLLOCK. I think our decisions have been a maximum sustainable yield of the herd and not the dollars we receive from them. However, it should be noted that due to the polygamous nature of the fur seal, excess males can be harvested at practically any population level without damaging the population. I think our program is founded upon this premise.

I think I would like to say, Mr. Chairman, that I think you are aware that Secretary Stans and I went to the Pribilofs this year for the purpose of observing the harvest. He is quite interested in this and the conservation aspects of preserving this very wonderful herd.

Mr. DINGELL. Gentlemen, we have kept you too long.

The Chair is delighted to see his old friend and colleague back here, and perhaps has kept you here for your very helpful and patient testimony.

Mr. POLLOCK. I have enjoyed the session. We really do appreciate the interest of the committee in this whole matter.

Mr. DINGELL. Gentlemen, we thank you.

If there is no further business, we will stand adjourned, pending the call of the Chair.

(Whereupon, at 6:30 p.m., the subcommittee recessed, to reconvene subject to the call of the Chair.)

MARINE MAMMALS

FRIDAY, SEPTEMBER 17, 1971

House of Representatives,
Committee on Merchant Marine and Fisheries,
Subcommittee on Fisheries and Wildlife Conservation,
Washington, D.C.

The subcommittee met at 9:50 a.m. in room 1334, Longworth Office Building, Hon. John D. Dingell, chairman, presiding.

Mr. Dingell. The subcommittee will come to order.

This is a continuation of hearings on legislation to preserve marine mammals.

We are privileged to have with us this morning the delegation in Congress from the State of Alaska along with several of our colleagues in Congress.

Mr. Begich, would you care to lead off for the Alaska delegation?

STATEMENT OF THE ALASKA DELEGATION TO CONGRESS

Mr. Begich. Thank you Mr. Chairman. The legislation presently being considered by this subcommittee of the protection of the ocean mammals of the United States and the world is of great importance to all Alaskans. As you well realize, Alaska and its marine areas provide the habitat for many of the species this legislation will endeaver to protect and manage. It is my privilage and pleasure to be joined in submitting testimony for these hearings by the other two members of Alaska's congressional delegation, Senator Mike Gravel and Senator Ted Stevens.

By coming before this subcommittee together, it is our intent to make clear our commitment to the task you are undertaking, and to confirm our unity on the direction such legislation should take.

First, we share a commitment to early action designed to gather full information about ocean mammals and the programs which will insure the existence and enhancement of each separate species. The crucial need is for information which can lead to responsible programs. In the outpouring of public information which preceeded these hearings, a common shortcoming was the drawings of judgments relating to various species of ocean mammals based on limited and often inaccurate information. The benefits of a comprehensive and fully funded study program cannot be overstated.

Second, the goal of such a program should be to identify the precise species of ocean mammals which are endangered and to create conservation and management programs which solve the problems which brought the species to an endangered status. To allow generalization of ocean mammal crises to continue will result in an inefficient use of available manpower and funds to solve the most important problems. When the areas of most serious problems are isolated, the measures to provide protection should be complete and unyielding.

Finally, each member of the Alaska delegation shares the view that special mention must be made of the needs of Alaska's Natives, especially the residents of the Pribilof Islands. For years, certain species of ocean mammals have supplied the means of subsistence to many groups of Alaska Natives. The management of the species utilized for subsistence has been in all respects admirable, and we share the view that subsistence rights should not be in any manner diminished by new legislation.

With specific regard to the Pribilof Islanders, their yearly seal harvest has been, in our view, unjustly maligned in information distributed recently. This harvest, carried out under the policies of the Four Nation North Pacific Fur Seal Convention, has resulted not only in the progression of the seal herd from near extinction to a full healthy herd, but has also provided the only practical source of income for over 600 residents of the Pribilof Islands. Although more will be said on this topic by each member of the Delegation in separate statement, it is our conviction that the present treaty should remain unchanged along with the present successful program of management in this area.

Mr. Chairman, this concludes the statement on behalf of the entire Alaska delegation. I appreciate the courtesy of the committee in hearing our testimony at this time. I wish to express my appreciation for the participation of my distinguished colleagues from Alaska in this hearing. At this time, Mr. Chairman, each member of the delegation would like to make a statement on this most important legislation.

Mr. Dingell. You may proceed.

Mr. Begich. Thank you.

STATEMENT OF HON. NICK BEGICH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALASKA

Mr. Begich. Mr. Chairman, the statement which I submitted on behalf of all members of the Alaska delegation captures the essence of my separate remarks as well. I continue for the purpose of adding detail to those remarks and elaborating on the direction I believe should be taken to protect marine mammals.

Alaska bears a special relationship to this legislation as Alaska provides the habitat for most of the species being studied here. The sea otter, polar bear, walrus, hair and fur seal and several types of whale are all found in Alaska and its waters. For years, the State of Alaska has recognized these ocean mammals both as an important natural resource and as a responsibility. I am aware that statements will be submitted by the State of Alaska to these hearings, but I would also assure the committee of the State's commitment to the goals of the legislation being considered here. I share in this commitment, and would offer the following comments for your consideration.

First, the crucial need in this or any other area of environmental protection is for adequate information. Few of us can deny that we have come to the entire environmental issue late, and must strive to regain lost ground. At the same time, I believe it can be agreed that the keystone environmental principle is the lesson of universality—the intricate relationship of all things to one another. From this, I am committed to the notion that we must not allow our zeal to regain lost ground to overcome the need for comprehensive knowledge of the effect our actions might have.

The reasoning is particularly appropriate to the work of this committee relating to ocean mammals and its larger work relating to the protection of the entire marine environment. While it is certain that immediate protective action is essential in some areas and for some species, I believe the theme of your final legislation in the 92d Congress should be the gathering of adequate information for coming years.

I believe it is particularly important to add a great deal to our knowledge regarding ocean mammals. I would be less than honest if I did not reflect my feeling that some of the information circulated regarding some marine mammal species in Alaska has given way to excessive inaccuracy and information. In the specific case of the Alaska fur seal, it was finally necessary for the most serious of these inaccuracies and exaggerations to be corrected by responsible public and private groups. I will comment further on this issue at a later point.

Unquestionably, all those involved in this issue are motivated by notions of sound public policy. As with so many of the newly emerging environmental issues, however, the desire to take prompt action is running ahead of the facts. In my view, this is the shortcoming of H.R. 6558, and is the reason that this bill cannot serve as the starting point for a comprehensive and responsible legislative program in this area.

An examination of all bills introduced reveals that H.R. 10420, by the gentleman from California (Mr. Anderson) has an admirable commitment to the need for comprehensive study and isolation of areas of particular concern. Title II of H.R. 10420 offers a framework which is responsible and practical. I indorse this proposal with a single exception, and that is the need for additional participation by the States. In undertaking study and regulatory action regarding marine mammals, the Federal Government is certain to steer perilously close to the State police powers clearly established in the area of fish and game regulation. In my view, the way to resolve this issue is to fully involve the States, with a cooperative program of study and participation.

In the specific case of Alaska, I believe a substantial additional benefit exists in creating a cooperative State-Federal program. The benefit is that the information contribution of Alaska is very likely to exceed that of the Federal level as the study of ocean mammals has been underway by State agencies for years, while it is a much newer national issue. I suspect the same is true for other States as well.

Mr. Chairman, I would summarize these first points at this time. I believe the early emphasis of comprehensive legislation should focus on the gathering of information and the isolation of problems for immediate attention. The formation of a long-term regulatory scheme should await the conclusion of the information gathering process. Second, I believe this process should emphasize the State-Federal relationship to a much greater extent than proposed in any legislation being presently considered. Speaking specifically for the contribution Alaska can make under such a plan, I believe it would do credit to the goals this committee is pursuing.

The second major area I wish to cover is the effect of this legislation on Alaska's Native population. I am aware of the knowledge the committee and its able staff holds on this subject, and will limit my remarks accordingly.

As I see it, there are two aspects of this concern. The first relates to the protection of Native subsistence practices as affected by this legislation. The second relates specifically to the residents of the Pribilof Islands and the annual harvest of seals in that area.

Regarding subsistence practices, I think the committee will be interested in the following very revealing statement from Alaska—Natives and the Land, prepared by the Federal Field Committee for Development Planning in Alaska (1968) :

> Activities of food-gathering (and related subsistence activities) are important to probably more Alaska Natives today than when the U.S. purchased Alaska from Russia 100 years ago. While the extent of dependence varies by region, among communities within a region, and among families within communities, it appears that most village Alaskans subsist in some measure by hunting, fishing, and trapping; by gathering berries and greens; and, for some, by using animal skins in garment making; and by gathering driftwood, timber, or willows for fuel. In western and northern Alaska there is generally a greater dependence upon food-gathering activities than in other regions.

The fact is, that in spite of intervening pressures of great magnitude, a cultural system centering on subsistence still thrives in some regions of Alaska, and ocean mammals play an important role in maintaining the subsistence level. I would make it very clear that it is incumbent on all of us to respect this situation and approach actions which would alter it with great care.

On the other hand, I think it is clear that no endangered species should be sacrificed in the effort to protect subsistence rights. The goal, obviously, is to strike a proper balance by approaching the entire problem with great sensitivity. Again, I find that H.R. 10420 contains provisions that most closely approach the desired balance and sensitivity.

The matter of the Pribilof Island seal harvest is, in many respects, the central situation upon which the present legislative action is undertaken. By this time, it has become abundantly clear that the sincere dedication of those who publicized this issue was marked by an excess of zeal over basis in fact.

By the time these hearings were undertaken, the extreme claims made concerning this seal harvest were resoundingly disproved by a series of objective reports from : the Secretary of Commerce, an administration panel of nationally known veterinarians, the residents of the Pribilof Islands, and a coalition of internationally respected environmental organizations. I am aware that the committee record includes these reports but wish to cite and endorse them at this time.

The result is that the facts of this situation have begun to stand out in reasonably sharp relief.

The harvest is the essential element of the economy of 600 Pribilof Island residents.

The general guidance and control of the harvest is under the North Pacific Fur Seal Convention between the United States, Russia, Japan, and Canada, which is often cited as a model for international conservation agreements.

The U.S. aspect of the harvest is supervised closely by the National Oceanic and Atmospheric Administration and is limited by sound conservation practices.

The result has been not a decimation of the seal herd, but rather a dramatic recovery of the herd since the inception of the treaty.

Mr. Chairman and members of the committee, I would submit that the case against this treaty and the present aspects of the fur seal harvest on the Pribilof Islands has not been made, and both should remain unaffected by the present legislation.

In conclusion, I would add only this: that my real hope is that this topic is not shelved after the efforts of this year in response to a sudden acknowledgement of a problem area. In this, as in every other area of environmental protection, the key will be our commitment to followup our present actions. In the protection of ocean mammals, this key will be extremely vital.

Thank you.

Mr. Dingell. We appreciate your views, Mr. Begich, and thank you for your interest.

Our next witness is the able Senator from Alaska, Senator Mike Gravel.

We're happy to have you with us.

STATEMENT OF HON. MIKE GRAVEL, A SENATOR IN CONGRESS FROM THE STATE OF ALASKA

Senator Gravel. Mr. Chairman, in recent months there has been a much publicized campaign conducted by a group of people dedicated to the preservation and protection of ocean mammals. While I applaud their dedication to this serious problem, I take issue with the manner in which their campaign is conducted.

Wide distribution has been given to photographs depicting the gory slaughter of baby seals and their mothers, captioned with misleading references to the annual seal harvest in the Pribilof Islands.

As a matter of fact, these photographs were taken on the Gulf of the St. Lawrence in Canada—an area over which the United States has no jurisdiction.

The legislation proposed today, H.R. 6558, has a very grave significance to the State of Alaska generally, and the Aleut community in particular, and I think the time has come to look at the facts.

The Fur Seal Act of 1966 charged the Secretary of the Interior with management of the seal harvest on the Pribilof Islands. Under President Nixon's Reorganization Plan No. 4, jurisdiction was transferred to the Secretary of Commerce, and at present the National Oceanic and Atmospheric Administration supervises the harvest of approximately 50,000 seals each year.

The harvest is limited in large measure to nonbreeding bachelor males between the ages of 3 and 4 years.

Baby seals are not harvested.

Females are taken only when it is in the best interests of the herd; that is, in order to maintain a population level their environment can support.

The harvest is conducted under the auspices of the North Pacific Fur Seal Convention by international treaty between the United

States, Russia, Japan, and Canada, and is cited by historians as one of the most successful conservation efforts ever undertaken.

In 1911 the North Pacific fur seal herd numbered less than 200,000 due to indiscriminate slaughter in the open seas. Under the protection accorded by the North Pacific Fur Seal Convention their numbers now exceed 1⅓ million.

The Ocean Mammal Protection Act would terminate this historic treaty and call instead for the United States to seek an international agreement to stop all killing of North Pacific fur seals on land or sea.

I submit that such a measure is totally unfeasible and would result in resumed random hunting of the animals.

Fifteen of the world's most respected conservationist groups, including the American Committee for International Wild Life Protection, the National Audubon Society, North American Wildlife Society, and the World Wildlife Fund are united in their opposition to this bill.

As responsible legislators, we cannot allow the emotional aspects of this issue to override the scientific facts.

We cannot accept blanket legislation of this sort. The field of ocean mammal protection is a vast one—each species deserves individual consideration.

For example, under the bill, the preservationist policies for the polar bear, which although relatively rare is not on the endangered species list, would be the same as for the blue whale which is in danger of extinction. How can the guidelines established for these two species be adapted to the thriving fur seal population?

We must distinguish carefuly between the bills introduced for ocean mammal protection.

H.R. 6558 is the wrong choice. Its negative aspects far outweigh any good its sponsors hope to accomplish. It would not put an end to the slaughter of baby seals on the St. Lawrence—it would terminate the international treaty which brought about the restoration of the North Pacific fur seal herd and create obstacles to any future international agreement for protection of ocean mammals. In addition, it would seriously undermine the scientific gains made in the field of animal conservation and protection.

The Marine Mammal Protection Act, H.R. 10420, is the more reasonable alternative.

I particularly endorse the creation of a Marine Mammal Conservation Commission which would comprehensively review U.S. participation in international treaties relating to marine mammals and conduct a continuing review of the condition of these mammals, of methods for their management, and of humane methods of commercially taking the animals.

It would make recommendations for additional measures for protection of ocean mammals if deemed necessary and recommend revisions in the endangered species list when called for.

An authority of this nature is precisely what is needed to bring about a balanced program for protection and preservation of the ocean mammals.

Again, let me stress that we must not neglect our responsibility—we must work together, not divided on mistaken emotional grounds but rather united in our attempt to find the best possible solution to the problem of ocean mammal preservation.

Mr. Dingell. Thank you, Senator.

Now we shall hear from the other distinguished Senator from Alaska, Mr. Stevens.

STATEMENT OF HON. TED STEVENS, A SENATOR IN CONGRESS FROM THE STATE OF ALASKA

Mr. Stevens. Mr. Chairman and members of the subcommittee, I very much appreciate the opportunity to appear here this morning to comment on the ocean mammal protection legislation now being considered by the subcommittee. I will confine my remarks to the impact of this legislation on the citizens of Alaska, and especially our Indian, Eskimo, and Aleut people.

At the outset, I want to state my strong opposition to those provisions of H.R. 6558 and similar House bills which would terminate the Pribilof Islands seal harvest administered by the National Marine Fisheries Service. It is my view that these measures are the product of a well-financed advertising campaign which has succeeded in disseminating a good deal of misinformation about the Alaska fur seal program. As you know, these ads have represented that the Alaska fur seal is in danger, that baby seals are slaughtered on the Pribilofs, and that the annual harvest is inhumane. These representations are not true. Furthermore, the enactment of H.R. 6558 in its present form would seriously endanger the continuing existence of the Alaska fur seal and would destroy the livelihood of the natives living on the Pribilof Islands.

Repeal of the protection presently provided by the Four-Nation North Pacific Fur Seal Convention, as would be required by the enactment of H.R. 6558 and similar legislation, would mark a retrogression to the preconvention situation where seals were slaughtered indiscriminately on the high seas. Under the convention, the herd has progressed from near extinction to what is now a healthy, thriving population. To insure the continuing vitality of the herd, selective harvesting of bachelor seals is necessary. In this connection, I should emphasize that baby seals are not harvested in Alaska. All of the pictures depicting such harvesting were taken in areas not under the jurisdiction of the United States. Moreover, extensive experimentation, I am informed, has demonstrated that the swiftest, most painless harvesting method is clubbing in the expert manner practiced by the residents of the Pribilof Islands.

The Secretary also observed that the seal management program on the Pribilofs has been one of the most effective wildlife conservation and management programs in history. Mr. Stans' observations have been strongly corroborated in a report to the Commerce Department by a panel of six distinguished veterinarians selected by the American Veterinary Medical Association. I understand that the report—which concluded that the Pribilof harvest is conducted in a humane, efficient manner—will also be included in the hearing record.

The leaders of many prestigious and knowledgeable conservation groups have also expressed the view that H.R. 6558 and other bills of this type are unsound in that they prohibit prudent management on the Pribilofs and require the termination of the Fur Seal Convention. In separate letters to President Nixon and to all Members of the House and Senate, these leaders stated that programs for the protection and scientific management of marine mammals are being threatened by well-publicized and misguided efforts which, if successful, would destroy the operation of biologically sound activities conducted by State and Federal conservation agencies. The letters made clear that the "hands off" policy proposed in H.R. 6558 and S. 1315, an identical Senate bill, would severely jeopardize the efforts of responsible fish and wildlife agencies to manage their marine mammals programs in a scientific manner. Thus, the ability of these mammals to survive and prosper would be adversely affected. I respectfully request that the letters which I have just mentioned be inserted in the hearing record.

Mr. DINGELL. If there is no objection, it is so ordered.

(The letters follow:)

KODIAK, ALASKA, *June 5, 1971.*

President RICHARD M. NIXON,
The White House,
Washington, D.C.

DEAR MR. PRESIDENT: We are writing in regard to the upcoming meeting of the International Whaling Commission, to urge that the United States propose a ten-year international moratorium on the killing of all whales.

The slaughter of these animals by foreign fleets—so common in the waters off Alaska—will surely lead to their extinction unless drastic measures are enacted and enforced.

We are encouraged by the steps your adminstration has already taken to protect several species of whales. However, we believe that an international moratorium on whaling for at least ten years is vital if whales of all existing species are to survive.

We respectfully request your support of such a proposal.

Very truly yours,

MR. AND MRS. DOUGLAS K. MCLEOD.

U.S. SENATE, *June 7, 1971.*

Dear ——— ———: Through a well-financed advertising campaign, a good deal of misinformation has recently been disseminated relative to the Alaska fur seal program administered by the National Marine Fisheries Service. These ads have represented that the Alaska fur seal is in danger, that baby seals are slaughtered on the Pribilof Islands, and that the annual Pribilof harvest is inhumane. These representations are not true.

Based on this misinformation, S. 1315, the Ocean Mammal Protection Act, has been introduced to require that the four-nation North Pacific Fur Seal Convention be terminated. If enacted, this measure would seriously endanger the continuing existence of the Alaska fur seal and would destroy the livelihood of Alaska Natives living on the Pribilof Islands. Withdrawal of the protection presently provided under the Fur Seal Convention would make a retrogression to the pre-convention situation where seals were slaughtered indiscriminately on the high seas. Under the Convention, the herd has progressed from near extinction to what is now a healthy, thriving population. To insure the continuing vitality of the herd, the selective harvesting of bachelor seals that have not found a mate is necessary. (Baby seals are not killed in Alaska.) Extensive experimentation has demonstrated that the swiftest, most painless harvesting method is clubbing in the expert manner practiced by the residents of the Pribilof Islands.

Seeking expert opinion, I asked Tom Kimball, Director of the National Wildlife Federation, and Dan Poole, President of the Wildlife Management Institute, for their views on S. 1315. Both of these men told us that this legislation is unsound in that it prohibits prudent management on the Pribilofs and requires the termination of the Fur Seal Convention. Representatives of other conservation groups are expected to express similar views in the near future.

Not only is S. 1315 unsound from a conservation point of view, it is also unsound economically. The Aleut residents of the Pribilof Islands would be deprived of their primary source of livelihood. At the same time, if the Con·

vention is repealed other nations could renew their pelagic sealing efforts, thus not only diverting income from the Pribilof Islanders to foreign nationals but also destroying the scientific management program which has restored the herd.

For these reasons, I urge you not to endorse or co-sponsor S. 1315 or legislation similar to it. If you have any questions or comments, please contact me or have a member of your staff contact my Legislative Assistant Mr. John Katz, on Extension 53004.

With best wishes,

Cordially,

TED STEVENS,
U.S. Senator.

THE ALEUT COMMUNITY COUNCIL,
St. Paul Island, Alaska, May 19, 1971.

DEAR SENATOR: On behalf of the 600 Aleut residents of St. Paul and St. George, Pribilof Islands, we are writing to you about a bill known as the "Ocean Mammal Protection Act" (S. 1315, H.R. 6558) which has been introduced in this Congress. We urge you not to endorse or support this bad legislation.

If you have been told that this bill will benefit the Alaska fur seal, you have been misled. Title III of the bill would bring about termination of the North Pacific Fur Seal Convention. This would seriously endanger the herd and destroy our only practical source of income.

Why would anybody want to terminate a successful four-nation treaty which has brought the fur seal from near extinction to what is now a healthy, thriving population? Because a well-financed advertising campaign which plays upon the emotions of well meaning people has vilified our people and the Pribilof fur seal program, one of the most successful international conservation programs ever undertaken. Do not be misled into believing that baby seals are harvested on the Pribilof Islands. *No baby seals are ever harvested on the Pribilofs.* The Pribilof Island program should not be confused with one administered by the Canadian Government in the islands of the St. Lawrence River where baby hair seals are harvested. Do not be misled into believing that clubbing the seals is inhumane. *Extensive testing has failed to develop a quicker, more painless method of harvest.*

The Pribilof Islands are the sole breeding grounds of the Alaska fur seal. The seal spends most of the year in the open seas, migrating as far west as Japan and as far south as the Mexican border. Prior to the 1911 treaty the herd had been reduced to about 120,000 because sealers indiscriminately hunted in the open seas. Since the treaty was entered in 1911 sealing on the open seas has been forbidden by the laws of the U.S., Canada, Japan and Russia. The herd is now maintained at a level of about 1.3 million. These countries abstain from taking seals on the high seas in return for a share of the annual regulated harvest of nonbreeding bachelor males.

The Aleut residents of St. Paul and St. George are employed in the annual harvest and in skinning and curing. These two communities represent the largest aggregation of our people in the world. The legislation would require our people to disperse. It takes away our livelihood and gives us nothing practical in return.

The bill would also take away from the fur seal the protection afforded by the North Pacific Fur Seal Convention and give it no practical protection. In place of the present convention the bill calls for an international agreement to ban all killing at sea or on land. We frequently stand on shore and watch vessels with Russian, Japanese and Korean flags fishing the waters of the Bering Sea. Do you believe that if the present treaty were terminated North Korea would agree to abstain from taking seals in return for nothing?

The Aleut Community urges you not to support this very bad legislation. We enclose a copy of a resolution and petition of the Aleut Community Council which we have submitted to Senator Fred Harris, the chief sponsor of S. 1315, requesting that he withdraw the bill.

JASON BOURDUKOFSKY,
President of the Aleut Community Council.

GABRIEL STEPITIN,
Vice President of the Aleut Community Council.

Enclosure.

THE ALEUT COMMUNITY COUNCIL, ST. PAUL ISLAND, ALASKA

Whereas, the Aleut Community of St. Paul Island is organized under the Indian Reorganization Act of June 18, 1934, as amended by the Alaska Act of May 1, 1936, and under its Constitution and Bylaws, and Corporate Charter, are authorized to do business; And

Whereas, in addition to a land base, which after one hundred years is finally being made possible through the Fur Seal Act of 1966 authored by the late Senator Bob Bartlett. It is imperative that we retain our only source of income which is the seal industry; And

Whereas, through lack of knowledge of local people and conditions the author of S. 1315 implies that some one hundred fifty (150) men will become guides and rangers if they agree to stop sealing; And

Whereas, though the Harris Bill, S. 1315, may address itself to a general condition, it is detrimental to our way of life and future existence. NOW.

Therefore, be it resolved by the Council of the Aleut Community of St. Paul Island, and on behalf of the unorganized Aleut Community of St. George Island, that they *do not* endorse S. 1315 because it will kill our only source of income without providing any practical alternative industry to sustain our people and future on the islands; further, that they do not want to move or be moved off their islands.

The undersigned residents of the Aleut Community of St. Paul strongly endorse the above resolution and respectfully request the Honorable Senator Fred Harris of Oklahoma to withdraw S. 1315 for it is detrimental to our very livelihood. If S. 1315 is passed, it could mean the death of the largest Aleut Community in the world and we believe that this is not Mr. Harris' intention. We feel that if the Senator had adequate information of the Pribilofs, the Bill would not have been proposed.

Senator STEVENS. As further documentation for the position that I have taken, I would also like to insert certain additional data. One of the documents is a news release issued by Secretary of Commerce, Maurice H. Stans, after a recent visit to the Pribilof Islands. Secretary Stans concluded his statement with the observation that:

> Ending the program (on the Pribilofs) would not be in the interest of a sustained seal population, the Aleut workers or the federal government. I repeat, if and when more humane methods for harvesting are found and satisfactorily tested, they will be adopted.

In addition to the news release, I would like to insert an article printed in the July 1971 edition of NOAA, a publication of the National Oceanic and Atmospheric Administration of the Department of Commerce. In this article, entitled, "A Thriving Herd," Mr. John A. Guinan points out that under National Marine Fisheries Service management, the Pribilof seal herd has come back from near extinction. In addition, he describes the management techniques employed on the island and exposes certain fictions that have been widely disseminated about the seal harvest.

Mr. DINGELL. Without objection, so ordered.

(The information follows:)

CONCLUSIONS ON METHODS USED IN HARVESTING SEALS

U.S. DEPARTMENT OF COMMERCE,
Washington, D.C., July 14, 1971.

Secretary of Commerce Maurice H. Stans today reported his conclusions on methods used in the harvesting of seals, following his return from a visit to the Pribilof Islands off the Alaskan Coast in the Bering Sea on July 8th and 9th.

Secretary Stans went to the Pribilofs to observe fur seal management and conservation practices there, and to review harvesting methods in light of recent criticisms of the practices.

While there, he consulted with the following:

1. A group of six veterinarians named by the American Veterinary Medical Association to study the methods employed in fur seal harvesting.
2. Members of the administration of St. Paul, the major Aleut community in Alaska, located on one of the Pribilof Islands.
3. Representatives of the American Humane Association, the International Society for the Protection of Animals and the Humane Society of the United States, who were on the Island to observe the harvesting.
4. Representatives of the Canadian government with responsibilities for seal harvesting in Canada.
5. Members of the National Marine Fisheries Service, which is responsible for the harvesting and preparation of the seal skins.

"The issue is not whether we will or will not continue to manage the fur seal herd," the Secretary said. "The issue is how we will manage the seal herds at their optimum levels most humanely."

The Secretary said present management practices were arrived at after the near extinction of the herd sixty years ago, and cessation of the internationally-negotiated management program now very likely would result in the same catastrophic effects. He said these could include resumption of high seas hunting of the seals, with indiscriminate slaughter, and a very high mortality rate of the pups on shore.

"As a result of my meetings and my personal review of the situation," he said, "I can report the following conclusions:

"1. There is no molestation or harvesting of the female seals, the pups or the male bulls associated with the harems in the rookeries. The only harvesting that takes place is of male seals three or four years old who situate themselves at a distance from the breeding herds.

"2. Except for the fact that the operation takes place in the open, the method of harvesting is very similar to that which takes place in a meat-packing plant. The herd of male seals is removed about 100 yards from the beach, sorted into groups of from six to ten, and each animal in a group is then rendered unconscious by a quick blow to the head and immediately killed by bleeding. The entire process, including the skinning of the dead animal, takes about one minute.

"3. Investigations have been conducted over a period of years to determine whether or not there is a more efficient method of harvesting. None has been found. The six veterinarians on the spot have been asked by me to make any recommendations for a more humane method of harvesting, and their report will be made to me upon the completion of the assignment. If their scientific studies establish that a better method is practicable, it will be adopted.

"4. The annual period of harvesting and the number of seals harvested is determined carefully on a basis that will maintain the population of the seal herd at its optimum level. As a result of this process, the number of seals on the Pribilofs is currently estimated at 1,300,000, compared to only 200,000 in 1911. There is no present danger whatsoever of extermination of the herd under these policies.

"5. The harvesting of the seals is the source of practically all of the income of the 700 Aleut residents of the Pribilof Islands. To deprive them of this income would make them dependent on the government. The local officials make it quite clear that they want the harvesting to continue so that the residents can earn a living and that under no circumstances do they want to move from the Islands.

"6. Any implications, such as those recently published, to the effect that baby seals are harvested, that harvesting is depleting the herd, that harvesting methods are inefficient or inhumane, or indiscriminate, are totally unfounded. The crop of these animals is being managed and harvested under scientific practices just as domestic animals are raised and harvested.

"Ending the program would not be in the interest of a sustained seal population, the Aleut workers, or the federal government. I repeat, if and when more humane methods or harvesting are found and satisfactorily tested, they will be adopted."

Secretary Stans said the fur seal management program has been one of the most effective wildlife conservation and management programs in history.

Veterinarians' Views on the Seal Harvest

U.S. Department of Commerce,
Washington, D.C., September 8, 1971.

Secretary of Commerce Maurice H. Stans announced today that a panel of six distinguished veterinarians selected by the American Veterinary Medcal Association has found that the annual Pribilof Islands fur seal harvest is humanely and efficiently conducted.

The Secretary early this year invited the team of nationally known veterinarians, headed by L.. C. Roger Smith, Ohio State University research professor, to review sealing practices conducted by the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration, and to make recommendations, if possible, for improvement.

Highlights of the report, released today, are:

> In the present operation, good management and supervision have provided humaneness.
>
> The Aleut sealers are continuously supervised, performing their strenuous, dangerous jobs "in a serious manner and without evidence of malice toward the animals."
>
> Animals were not forced to travel at a fast pace from the beach to the harvest field, and were rested en route where it appeared desirable.
>
> The harvest was confined entirely to male seals, generally in the 3-4 year age class. Baby seals were not taken.
>
> Clubbing is a rapid, highly efficient and humane method of rendering the animal unconscious when properly performed . . . Clubbing, followed by exsanguination, constitutes painless, humane euthanasia.
>
> Quick, deep unconsciousness followed stunning, with no recovery of consciousness in the 30–60 elapsed seconds between the stunning and bleeding of the animals viewed by the panel.
>
> In all instances observed, the seals were dead when the pelts were taken. Rumors have been circulated that they are skinned alive.

"I am pleased indeed that the panel found unanimously that the methods of harvesting seals cannot be criticized from the standpoint of humaneness and efficiency," the Secretary said.

"This confirms my own observations at the scene during the harvest in July. I hope it will put to rest once and for all false rumors of brutality and poor conservation practices being circulated by a few vocal critics. We now have the truth from a highly qualified and impartial source."

The panel, which was on St. Paul Island from July 7 through July 14, offered several recommendations, which the Secretary said would be carried out, notably that despite the humaneness of the operation, the search should continue for more aesthetically acceptable methods of euthanasia.

NMFS official observers confirmed that the Pribliof seal population now appears stable at about 1.3 million animals. Early in this century, open-ocean sealing had reduced the population to about 200,000. An international treaty was initiated in 1911 and the Pribilof Islands herd placed under the control of the U.S. Government.

Under present international agreements, the NMFS supervises the yearly harvest of Pribilof seals. The harvest, restricted largely to 3 to 4 year old bachelor males, is conducted by native Aleuts under the supervision of NMFS managers. Thirty percent of the pelts collected are divided between Canada and Japan in return for their abstinence from sealing in the oceans.

After preliminary processing on the Islands, the sealskins are sent to a private company for final processing. Subsequently the furs are auctioned off to buyers from many countries. Over a period of years the profits from the sale of the skins have paid for the extensive research, administration of the Islands, the harvesting, various social benefits to the Aleut inhabitants such as education and housing, and still provided a net profit. Since statehood, the State of Alaska. by law, receives 70 percent of the net profits after all costs to the Federal Government have been deducted.

A list of other panel members follows.

*Bernard S. Portner, V.M.D., Associate Professor, Department of Pathology, New Jersey College of Medicine and Dentistry, 100 Pergen Street, Newark, N.J.

*William V. Lumb, D.V.M., Ph. D., Director and Professor, Surgical Laboratory, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Ft. Collins, Colo.

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*Member, A.V.M.A. Council on Research's Panel on Euthanasia.

Leslie E. McDonald, D.V.M., Ph. D., Associate Dean and Professor of Physiology and Pharmacology, College of Veterinary Medicine, Athens, Ga.

*Alvin F. Moreland, D.V.M., Associate Professor and Head, Division of Comparative Medicine, University of Florida, Gainesville, Fla.

*Wallace M. Wass, D.V.M., Ph. D., Professor and Head, Department of Veterinary Clinical Sciences, College of Veterinary Medicine, Iowa State University, Ames, Iowa.

A THRIVING HERD

(By John A. Guinan)

On the grim, mist-shrouded Pribilof Islands off the coast of Alaska, an annual ritual that predates recorded history is taking place once again.

The Northern Fur Seals have arrived at the rookeries on these lonely islands. The snowdrifts along the rocky beaches and rough volcanic hillsides have not melted completely when, in late May and early June, the big breeding bulls begin to appear. Heavy with fat from the long winter's feeding, belligerent and full of fight, the bulls or "beachmasters" lumber ashore. Each establishes his individual territory—about 30 to 50 feet in diameter—which another bull enters at his peril.

Mature male or "bull" fur seals are much larger than the females or "cows." The fur seal cows average about 100 pounds in weight, but the great breeding bulls weigh from 400 to more than 600 pounds. The young of these fascinating creatures are called "pups."

Soon it is summer on the tiny islands where no tall tree grows, but where for this brief season hundreds of varieties of wildflowers of rare color and beauty burst into bloom.

About mid-June, the cows begin to arrive. Until this time, once their territories had been established, the bulls have slept or rested from their long sea journey. When the contest for their harems begins, however, there is no rest for the big beachmasters. Polygamous to an amazing degree, each gathers in as many docile cows as possible; the number varies from one or two to a hundred, but the average is about 40. Day and night, the air is filled with the bleating of females and young, and with the roars of the mighty males as each bull defends his harem against all comers. Battles between males are savage. From now until the end of the breeding season, the bulls live without food and get little sleep, gradually losing the layers of fat with which they came ashore.

Almost as soon as the harems are formed, the pups conceived the year before begin to appear, and soon after a pup is born the mother is bred again. One pup per cow is the rule, and the young are carried for an entire year before birth. Not all cows bear young each season; the proportion is about 80 percent.

The pups are precocious, their eyes wide open. They are active and have a coat of hair. It will be some weeks before any fur appears. They are entirely dependent on the mother's milk for food. The cow generally stays close to her youngster for several days, then leaves to go to sea for food. The mother may be away for a week, her trip taking her as far as a hundred miles from the rookery, but when she returns, the pup makes up for lost time. It takes on several times more milk than would a human infant of the same body weight—up to a gallon of rich, creamy milk at a feeding. The little stomach swells like a toy balloon as the pup drops off for a long sleep. The mother seal will feed only her own pup and, despite her lengthy absence, the miles she travels, and the thousands of pups in a rookery, she finds her own.

Baby fur seals venture to the water at about four weeks. Even though they can swim at birth, they have very little endurance. Their first trips to the cold water are taken with trepidation.

The cow seals nurse their young for about three months, and no human disturbs them. By now, the weather is taking a turn for the worse, and the pups are left abruptly to shift for themselves. Early mortality is high. Many pups succumb on the island before migration; others are prey to killer whales or big sharks; still more are lost in storms at sea. Yet more than enough young seals survive each year to keep the herd at its maximum healthy size.

Around the edges of the breeding rookeries range the younger bulls, varying in age from six to eight years but not yet strong enough to compete with the fully matured beachmasters. Now and then they may steal a wayward wife or two, or even take over the harem of a disabled monarch. But most of the

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*Member, A.V.M.A. Council on Research's Panel on Euthanasia.

younger bulls await the end of the active breeding season when the young unbred females appear on the shore to join their first harem.

And while all this activity goes on, the younger male seals, up to six years of age—known as "bachelors"—congregate in their own area nearby. It is from these males that the annual harvest of fur seal skins is taken, primarily from three and four-year old animals. Because the number of males and females at birth is approximately the same, and because the breeding bulls are so polygamous, many of these bachelors are surplus to maintaining the population of the herd.

Removing bachelors from the hauling grounds is comparatively easy and does not disturb seals in the breeding rookeries. The weeks from late June until early August find the Aleut sealers on the hauling ground each morning at daybreak. The bachelor seals are driven a short distance inland from the beaches and sorted into progressively smaller groups or "pods," until only those to be harvested remain on the grounds. The seals are dispatched by a single blow to the head with a long club, immediately-followed by sticking the heart. It may look cruel, but it does render a quick death. In fact, no quicker or more efficient way has been found to kill the animals in spite of a great amount of research over the past three years to find another method. The National Marine Fisheries Service, which administers the Pribilof Island Fur Seal Program, continues to seek an alternative method of dispatching the animals and this year has a six-man team of consultants referred by the American Veterinary Medical Association studying the problem on the islands.

After the pelts are taken, they are transported to a processing plant on the islands where they are cooled and washed, and the fat or blubber is removed. The pelts are then cured in brine; when this process is complete, they are packed in wooden barrels.

Fifteen percent of all skins taken by the United States go to Japan and another 15 percent to Canada, under terms of an international treaty. In return for a share of the skins, Japan and Canada refrain from what is called "pelagic"—sealing—that is, taking seals at sea. Pelagic sealing is a wasteful process, because the sex or age of seals is most difficult to determine when they are in the water, and because many animals are merely wounded and lost.

The Soviet Union harvests fur seals on the Commander Islands and Robben Island and has the same percentage arrangement with Japan and Canada. Representatives of the four nations meet annually under terms of the Interim Convention on the Conservation of North Pacific Fur Seals.

The Alaska fur seal herd, the world's largest, today numbers some 1.3 million animals. Early in this century, the seals faced extinction as the population declined to about 200,000. Since then, under the sound wildlife management practiecs of the NMFS (formerly the Buerau of Commercial Fisheries), the herd has increased and stabilized. Scientists determine how many seals can be taken each year without endangering the population, and the kill is limited to that number. The restoration of the herd has been hailed throughout the world as an outstanding achievement in wildlife management and conservation.

NMFS scientists and technicians travel to the Pribilofs to supervise the annual harvest. They join the year-round and temporary Aleut employees who work on all phases of the harvest. Sealing and related services are the only real employment available to the people of the islands.

The inhabitants are Aleuts, a people said to have been taken to the Pribilofs to harvest seals for the Russians shortly after the islands were discovered. They are generally somewhat shorter than their fellow Americans in the "Lower 48" and somewhat stockier in build. They are not Eskimos, and maintain they are a separate race. Some of the present residents can trace their ancestry back for 180 years; more than 95 percent were born on the Pribilofs.

St. Paul, the larger of the two inhabited islands, is home to about 400 residents. Compared to many towns in Alaska, it has excellent physical facilities—reliable electrical service, pure water, a volunter fire department and a sewer system. The frame homes are arranged on streets, and new homes may soon outnumber the older residences.

The Aleuts are keenly aware of the importance of sealing, because it is their primary source of employment except for the relatively few service and maintenance jobs. There is no agriculture. St. Paul has several local businesses. There are four cafes, or refreshment stands, two movie houses, several taxis or rental cars, and one intermittent barber shop.

Since 1962, all workers employed by the United States have received standard government wages in accordance with the work performed and the period for which they were employed.

The Aleuts are full-fledged U.S. citizens who vote in local, state, and national elections. They all speak English, pay taxes, and young men are subject to the draft. Elementary school education is available, but for a high school education youngsters must go to the mainland.

Residents of the Pribilofs do not yet have telephones or television, but practically every family has at least one short-wave and long-wave radio. Many homes are equipped with citizens-band short-wave radios which substitute for telephones, except that there is no privacy. With these radios, they can communicate with each other on St. Paul and with friends and relatives on St. George, the other occupied island. The story is told of an Aleut lady who wanted to have a semi-private chat with a friend at the other end of the village via the citizens-band radio, so she whispered.

A small herd of wild reindeer roams St. Paul Island; and bird lovers come from all over the world, equipped with cameras and binoculars, to see the tufted puffins, the murres, the kittiwakes, the pelagic cormorants, and many other species.

And each year, the seals return, in a migration that has continued for eons.

THE TRUTH ABOUT THE U.S. FUR SEALS

FICTION

The U.S. kills baby seals on the Pribilof Islands.

FACT

The U.S. does not kill baby seals on the Pribilofs or anywhere else. Misleading advertisements have used pictures of a Canadian harvest of a different species of seal.

FICTION

The U.S. seal harvest takes place on the ice.

FACT

The U.S. harvest takes place on land a short distance from the rookeries where animals can be carefully selected for sex and age.

FICTION

Clubs are used because it's the cheapest way to kill the animals.

FACT

Scientific evidence has shown that clubbing and sticking the heart with a sharp knife is the quickest and most humane way known to dispatch the seals.

FICTION

At the rate we are killing them the last seal will soon be gone.

FACT

The Pribilof Island seal herds are scientifically managed to maintain the herd at its stabilized population of about 1.3 million animals. That is close to the number which will provide the greatest annual harvest.

FICTION

Seals are skinned alive.

FACT

There is no possibility that the animals could be alive or could recover after being struck with the club and the heart stuck with a knife.

FICTION

Clubbing and stabbing are cruel.

FACT

The method is consistent with current humane slaughter practices. The United States refuses to use a less effective method merely for the sake of appearances.

Senator STEVENS. Not only is H.R. 6558 unsound from a conservation point of view, it is also unsound economically. The Aleut residents of the Pribilof Islands would be deprived of their primary source of livelihood. At the same time, if the convention is repealed, it is very likely that other nations would renew their pelagic sealing efforts, thus, not only diverting income from the Pribilof Islanders to foreign nationals but also destroying the scientific management program which has restored the herd.

The cogency of these observations is underlined in a letter to all Congressmen and Senators and a resolution in which the 600 Aleut residents of the Pribilof Islands have expressed strong opposition to H.R. 6558 and S. 1315. I respectfully request that these documents also be included in the hearing record. As these statements indicate, the residents of the Pribilofs are unanimous in their belief that the bills which I have just mentioned are unsound from both an ecological and an economic point of view.

I would also like to address myself briefly to certain other matters associated with ocean mammal legislation. It seems to me that any legislative proposal which the subcommittee adopts should include an exemption which would permit Alaska Natives to continue to hunt ocean mammals, and especially whales, for subsistence purposes. This suggestion is premised on my firm belief that these activities, which yield an important portion of the nutritional requirements of many Natives living along the coast, would not jeopardize the continuing existence of whales and other ocean mammals. Rather, I believe that the present scarcity of such animals is the product of mass killing for commercial purposes by the nationals of certain foreign countries. Alaska Natives have traditionally been good conservationists, and I am concerned that one of their most important sources of food will not be jeopardized by the imprudent activities of other people.

In this connection, I should mention that I have been advised by Mr. John W. Townsend, Associate Administrator of the National Oceanic and Atmospheric Administration, that if the Congress decides to enact legislation calling for a 10-year international moratorium on the harvesting of all species of whales, the Department of Commerce would recomemnd an exception for the hunting of such mammals by Alaska Natives for their own use. This recommendation would be based on the Department's own research which reveals that population declines in certain whale species are not caused or affected by subsistence whaling activities undertaken by Natives living along the coasts of Alaska. Thus, I would suggest the adoption of language similar to section 203 (a) of H.R. 6558. As you know, this subsection would permit Alaska Indians, Eskimos, and Aleuts to take ocean mammals (except polar bears) for their own noncommercial use provided that such taking is done in accordance with customary traditions and as an adjunct of the Native culture.

Mr. DINGELL. That was an excellent statement, Senator, the committee appreciates your time.

Our next witness will be the gentleman from Wisconsin, Hon. David R. Obey.

STATEMENT OF HON. DAVID R. OBEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WISCONSIN

Mr. Obey. Mr. Chairman, I am indeed grateful to testify in behalf of H.R. 10420, sponsored by Congressman Anderson, myself and nine other Members of this House, which provides for the management of all marine mammals within the jurisdiction of the United States.

The passage of this bill would allow us to take significant steps forward in the preservation and management of marine mammals. Frankly, I think it may well be a necessary measure if the blue whale, sea lion, walrus, hair seal, sea otter, polar bear and other such species are to survive. These animals deserve our attention now, because as several scientists have warned, if action is not taken these animals may become extinct.

While this bill prohibits the harassment, hunting, capture or killing of these animals, it does allow the Secretary of Interior to issue permits for the taking of these animals as long as it is not done in such a way that the animals are threatened with extinction or undue attrition.

This legislation comes at a time when article after article has appeared in the press telling of atrocities by marine hunters and of the exploitation of marine mammals for their fur, meat or oil. Marine mammal populations have diminished sharply in recent years, ranging from the sea lion which loses a a few thousand each year to several whale species and stocks which are near extinction.

The killing of porpoises by tuna fiishermen is a prime example of the thoughtless waste that exists. The fleets are said to kill as many as 200,000 porpoises each year. Fishermen also prey on the sea otter with rifles, hoping to remove them permanently from the abalone fish beds. And, in addition to the commercial squander, in many areas the "sports hunter" threatens these animals even more seriously. In the case of the polar bear the game hunter's impact is dramatic. The Alaskan airplane hunter provides the impetus for a dwindling polar bear population.

Although the Northern Pacific Fur Seal Convention, which allocates the killing of seals by four countries, is a notable exception, little legislation and few international agreements exist regarding the preservation of marine mammals. Those which do exist are not strong enough to adequately protect our marine life. Federal legislation on the books varies too widely for effective control. Private research is still in the primary stages, and in need of Federal money and technical assistance.

Research in the field—which is desperately needed just to produce an adequate appreciation of the extent of the problem—is limited, and most of it is concentrated on fur seals. Even here research is only in the observation stages.

Research which has been done shows that marine mammals may prove to be of great importance to mankind in the future. The sea cow may prove to be significant as a consumer of water hyacinth, a source of concern and expense to water research managers. Water hyacinth tends to proliferate in reservoirs and creates massive ecological and esthetic problems. Further research in this area would obviously be beneficial.

Mr. Chairman, this measure is a flexible one which lessens the likelihood that any of our marine mammals would become extinct and at the same time allows for commercial management and scientific research. Combined with international agreements, this bill can halt the rapid decline of marine mammal life. Through the issuance of permits, development of research, and strict penalties, it offers a chance for effective protection of our marine mammal population. I hope this committee will support this legislation.

Mr. DINGELL. The subcommittee appreciates your fine statement.

I would now like to call on the gentleman from Nevada, the able Congressman Walter S. Baring.

STATEMENT OF HON. WALTER S. BARING, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEVADA

Mr. BARING. Mr. Chairman and members of the subcommittee, I appreciate this opportunity to put my support during these hearings behind legislation to prohibit and control the capturing or killing of ocean mammals and the act to be known as the Ocean Mammal Protection Act of 1971.

This legislation which I have cosponsored, H.R. 7861, is one more vital piece of legislation I deem most important for this Nation as we continue on the path of properly controlling and preserving the environment of this Nation, and for that matter, of all nations.

While the bill I have cosponsored is one of many which seeks to establish controls, all of the measures aim for the one solid purpose of halting the wanton and inhumane destruction of our wildlife, all too often solely for commercial gain.

We must seek to put a stop to incidents of slaughter of the various rare species of this Nation. The bill H.R. 7861, and others, include the tools for us to put the restrictions to work as soon as possible to insure continued productivity of the ocean mammals.

Also, while this legislation will help set guidelines to solve the problem of protecting ocean mammals, we must also seek solutions regarding the need for international agreements with other nations as some of the ocean mammals, such as the whale, range far and wide through international waters.

Some species of the whale and the polar bear are feared to be reaching such low levels in numbers that extinction of these endangered species will surely result unless proper controls are established.

I urge favorable action on this legislation.

Thank you.

The gentleman from Maryland, Hon. Clarence D. Long, will be our next witness.

STATEMENT OF HON. CLARENCE D. LONG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MARYLAND

Mr. LONG. Mr. Chairman, I am pleased to have this opportunity to testify on behalf of my bill, H.R. 7891, before the Fisheries and Wildlife Conservation Subcommittee during your consideration of legislation to protect ocean mammals. I commend you for holding hearings on this issue, which has aroused the interest of the American people and other nations throughout the world.

My bill would prohibit the taking of ocean mammals by any person or vessel subject to the jurisdiction of the United States, and would ban the import of such animals into the United States. To protect the natives who rely on these animals for food and clothing, my bill allows Indians, Aleuts, and Eskimos who live on the coasts of the North Pacific and Arctic Oceans to take the animals for their own use. However, the polar bear would be protected even from the natives.

One of my constituents who is concerned that the polar bear is quickly becoming extinct presented a petition bearing more than 1,200 signatures from all parts of the country to the Bureau of Sport Fisheries and Wildlife during a meeting in my office. The petition demands that immediate action be taken to fully protect the polar bear in all arctic areas controlled by the United States and that the U.S. Government enter into immediate negotiations with the governments of other arctic countries to establish an international agreement protecting the polar bear.

I am aware that Congressman Pryor has revised his bill to provide for negotiations to obtain an international agreement to protect all ocean mammals. My bill is identical to his original bill, and I endorse his provision for such an agreement.

I have received numerous letters from my constituents urging passage of this legislation. After watching a documentary of the slaughter of baby seals, a woman from Baltimore wrote, "Some of the baby seals were skinned while still alive. It made us all sick and our 4-year-old son cried, because of the way these so-called men killed these poor animals." A man from Baltimore wrote to me, "It would be different if man needed the skins of sea mammals to protect himself from the elements but this is no longer the situation." Another constituent wrote, "It's horrible what is being done to those poor animals just to keep human beings happy, and we certainly are not worth it." A young girl from my congressional district wrote, "After all the talk on our animals becoming extinct, why are we letting these adorable seals become extinct? Those darling creatures do nothing at all to harm man. Some of the fishermen who go on the annual kill say they do it for sport!"

The walrus is one ocean mammal which faces extinction in the near future. It is estimated that in the mid-19th century, the Pacific walrus population was 200,000. By 1968, only 45,000 remained. The total kill of walrus each year in the Pacific is about 8,300. Because it is a slow breeder, the walrus produces only one calf for each two adults killed. The figures speak for themselves.

I believe that enactment of this legislation is urgent, and I hope that the subcommittee will soon report it to the full committee so that we may have a chance to consider it on the House floor.

Mr. Dingell. Thank you very much Congressman, that was an excellent statement.

Our colleague from the State of Arizona, has requested to say a few words. Mr. Rhodes, you may proceed.

STATEMENT OF HON. JOHN J. RHODES, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. Rhodes. Mr. Chairman, It is an honor to appear before this subcommittee on behalf of the legislation you consider today, and more specifically, H.R. 7861 which I cosponsored.

Sadly, this type of legislation, to prohibit or control the capturing or killing of ocean mammals, is necessary if this needless brutality is to be stopped.

The need is supported by the unfortunate facts; the interest in Congress is demonstrated by the extremely large number of our colleagues who have cosponsored the legislation before you today; and the concern of the American people is evidenced by the tremendous public interest expressed in congressional mail. I urge you to report this legislation favorably.

Mr. Dingell. Thank you Congressman. We shall keep your views in mind when the committee considers this legislation in executive meeting.

Next, I would like to call on the very able gentleman from Virginia, the Hon. G. William Whitehurst.

STATEMENT OF HON. G. WILLIAM WHITEHURST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF VIRGINIA

Mr. Whitehurst. Mr. Chairman, the subject of marine mammals and the mass slaughter and cruelty to which they and other wildlife have been subjected has received national attention from the news media during the last few years. The accounts of the methods by which some animals are killed or captured have shocked and angered humanitarians across the world.

I have introduced two bills dealing with this subject which have been referred to this subcommittee. They are H.R. 7240 and H.R. 6804. The first bill calls for direct action dealing with the killing and capture of these animals, and the second directs the Secretary of the Interior to conduct comprehensive studies of all ocean mammals.

At this point, Mr. Chairman, I would like to explain why I introduce these bills. First, as a conservationist, I am concerned over our disappearing wildlife; and second, as a humanitarian, I am desirous of preventing cruelty to, or suffering of, any living creatures whenever possible, including, of course, animals unable to care for themselves.

Congress acted out of these same motives in the 91st Congress by passing three pieces of legislation which ultimately became public law. They are Public Law 91–579 the Animal Welfare Act; Public Law 91–544, the Horse Protection Act; and Public Law 91–135, the Endangered Species Act, which was first passed by this committee. All of these laws are major accomplishments in the areas of conservation and humanitarianism. We now have an opportunity to add a fourth to this list, thereby ending some of man's greatest crimes against nature and animals.

The tragic and dramatic decrease in the world population of our great whales has been brought to the Nation's attention. Blue whales have dropped from 100,000 to the present 1,000 in 50 years; the humpback decreased from more than 10,000 to just a few thousand; and the sperm whale population has slipped from 600,000 to 250,000 in 25 years. In response to these statistics, the Department of the Interior placed the great whales on the endangered species list, and the Department of Commerce followed this action by moving to eliminate all U.S. commercial whaling activities. However, steps must be taken not only to put a halt to the vanishing of the whale population but to assure that a similar fate does not await other species of ocean mammals and indeed, all animals, including the great cats, polar bears, coyotes, and eagles to name just a few.

Thanks to massive doses of publicity in all phases of the news media such terms as sea-clubbing, bunny-hopping, steel-jaw traps, coyote getters, and Compound 1080 have become familiar to most people. Bunny-hopping, as you know, is the practice of herding large numbers of rabbits into fenced-in areas and then turning adults and children loose on them with clubs. After one particularly bloody venture, it was reported that over 10,000 rabbits had been killed.

Coyote getters and compound 1080 are both involved in the effort to thin the number of predatory animals in the West and Southwest. The "getter" is an explosive device that expels a cyanide pellet into the mouth of any animal that tugs on it. Compound 1080, 1 ounce of which is potent enough to kill 200 adult humans or 20,000 coyotes, is among a number of poisons which are used in baited carcasses to attract predators. Needless to say, these methods do not discriminate among the kinds of animals they attract and destroy. Other methods used to thin predator populations include wiring the mouths of coyotes closed, then, while these animals are still alive, cutting out their bladders to be used to lure other coyotes to the same fate. Through these methods, eagles, domestic animals, pets, and human beings have lost their lives, and now there is even concern over the drastic decrease in the coyote population.

Steel-jaw traps have long been regarded as cruel. The accounts of trapped animals gnawing off their own legs and paws in order to escape are gruesome. Animals which do not escape in this way must suffer untold anguish until they are released by death, either naturally or at the hands of the trapper. These traps can be purchased in various sizes.

The subject that has been the target of the most publicity, however, has been the clubbing of the seals in the Gulf of St. Lawrence and the Pribilof Islands. Many documentaries have been done, with varying degrees of accuracy. I am sure that most of us have seen at least one of them.

The sight of a baby seal being killed is distasteful to all of us, particularly when repeated clubbing is necessary. Any inhumanity displayed during the harvest of these animals must be eliminated. At the same time, however, we must be sure that we do not hinder the beneficial conservation and economic accomplishments of the seal harvesting in the Pribilofs. To ban the taking of all seals in the Pribilofs would put us in default of the treaty to which we are signatories along with Japan, Canada, and Russia, and put us in danger of returning to the tragic days of pelagic sealing.

The Pribilof Treaty was signed in 1911, when the fur seal population was found to have dropped from over 2 million in the early 1800's to just over 100,000. As an inducement to end the indiscriminate slaughter that had gone on, Japan and Canada were to receive 15 percent of the proceeds from the regulated harvest. The harvest has been conducted under strict conservation methods which, to date, have made it possible for the fur seal herd to grow from that low point to the present 1.3 million, while producing more than $75 million from pelts. To interfere with this treaty by banning the killing of the seals could undo all that has been accomplished over the past 60 years. Further, to ban the killing of all seals would lead to unrestricted growth of herds, with ultimate starvation the result of overpopulation. Thus a careful balance must be maintained.

Mr. Chairman, there is one more subject to which I would like to direct remarks, and that concerns the capture and importation of animals for the purpose of stocking private game preserves. This concept and everything connected with it goes against the grain of every humanitarian and conservationist, and it should be halted.

Mr. Chairman, I believe that the principles contained in H.R. 7240 would go a long way toward ending the ills I have outlined. H.R. 7240 would do the following:

(1) Prevent the importation of any ocean mammal, polar bear, or exotic animal, or their byproducts, that is endangered or was taken by inhumane methods. This will not hinder any treaty obligation we now have, but it will necessitate the determination of what humane methods of slaughter or capture are. Parenthetically, let me say here that I do not believe that the planned visit to the Pribilofs by the Department of the Interior to determine the humaneness or inhumaneness of clubbing a seal to death can truly be considered an objective trip, as a result of the preliminary publicity and the Aleuts' awareness of the impending trip.

(2) Prevent the inhumane methods of capture or killing of any animal within the United States or its territories.

(3) Eliminate the stocking of private game preserves with animals imported into this country, unless the stocking is for conservation purposes.

Mr. Chairman, the purposes of this bill can best be achieved if they are combined with the machinery contained in H.R. 10420, which calls for licensing and the establishment of quota systems. I am also asking at this time for the institution of mandatory Federal licensing, at minimal fees, for all trapping and hunting on Federal property. H.R. 9754, which has already received hearings by this subcommittee, contains the essence of what I am proposing, but it should also require the mandatory licensing regardless of the presence of a "cooperative Federal-State agreement."

This legislative combination eliminates many of the questions that had arisen concerning the feasibility of H.R. 7240, and would certainly seem to satisfy the questions raised by the Department of the Interior in their report on my bill.

Thank you, Mr. Chairman and members of the committee, for giving me this opportunity to testify. I know that my bill as well as the others will receive your careful consideration, and I am grateful to you.

Mr. Dingell. The subcommittee thanks you for your excellent statement.

Our good friend from Massachusetts, the Honorable Silvio Conte, will be our next witness.

STATEMENT OF HON. SILVIO O. CONTE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

Mr. Conte. Mr. Chairman, I welcome this opportunity to express my support of the Ocean Mammal Protection Act of 1971.

Over the past few months I have received a heavy volume of mail from my constituents making their views known on the subject of protection of our oceans' mammals. I feel the time has come to take the simple, but necessary steps to protect from brutal death and extinction our seals, whales, walruses, porpoises, dolphins, sea otters, manatees, polar bears, and so forth.

The bill I have cosponsored would do that now, not tomorrow and not following some commission's endless wrangling over this issue until it is too late. It would simply stop the killing now and would do so by three principal methods.

(1) It would prohibit U.S. citizen from killing these mammals.

(2) It would ban the import from other countries of skins or other parts of these mammals, thereby removing the economic incentives for other countries to continue the killing.

(3) It would direct our Government to initiate negotiations with other countries for complete protection treaties for each of these species of mammals.

There has been some opposition voiced against this measure. There are those who have seen fit to try to kill this bill or, in the alternative, substitute a much weaker one in its place. Some conservation groups oppose this legislation on the basis that one of man's rights and duties is to manage his resources for either economic or recreational benefits.

Perhaps most of the opposition has centered around that section of the bill concerning the North Pacific fur seal and the treaty under which we now operate an annual seal kill of some 40,000 on our Pribilof Islands. The State Department has taken the position that we are party to a group conservation treaty and we should not in any way jeopardize its aims. The fear is that cosignatories might resume pelagic sealing resulting in tragic consequences to the North Pacific fur seal population. However, Mr. Chairman, that would not result from this legislation. For it calls upon our State Department to negotiate a new treaty to provide complete protection for these seals with the Soviet Union, Canada, and Japan. The State Department is to pursue such a treaty until it is an actuality. The existing treaty is to be renewed in 1976 to preclude pelagic sealing if we are not able to successfully negotiate a new treaty by that time.

Another argument holds that, if we stop the killing of the North Pacific fur seal, the Aleut natives would be dispossessed of the only occuaption they know, that is, killing seals. Mr. Chairman, this assertion clouds the issue. These Aleuts were brought to the Pribilof Islands many years ago by the Russians. They were kept there under the czars for the purpose of killing these seals. Since we purchased Alaska we have kept them in the same status of indentured servants to slaughter these seals. It is very much like pitying the poor dope peddler because he is applying the only trade he knows. The world's strongest and richest country could surely spend a little time devising other ways for the Aleuts to make a decent living.

Mr. Chairman, we do not need a commission to tell us that most species of whales and/or polar bears are endangered. We do not need additional bureaucrats to study the remaining numbers of manatees and sea otters until such time that all we have left to study will be the skeletal remains of an extinct species. Since we no longer need the food, fiber, and oils from any of these mammals, we should be civilized enough to end the killing of them now. I respectfully urge that the committee take prompt and effective action in approving this legislation.

Thank you, Mr. Chairman.

Mr. DINGELL. We certainly appreciate your fine statement.

The next witness is the gentleman from Alabama, our good friend the Honorable John H. Buchanan.

STATEMENT OF HON. JOHN H. BUCHANAN, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALABAMA

Mr. BUCHANAN. Mr. Chairman and members of the Subcommittee on Fisheries and Wildlife. As a cosponsor of the Ocean Mammal Protection Act of 1971 (H.R. 7706), I am gratified that this subcommittee is holding hearings on this and related measures which would give needed protection to seals, whales, polar bears, walruses, sea cows, sea lions, porpoises, and dolphins. This legislation has my strong support. I would, however, recommend to the subcommittee one change. which I will discuss later.

The Ocean Mammal Protection Act declares the protection of all ocean mammals to be the public policy of the United States, to be carried out through severe restrictions on the taking of ocean mammals by persons or vessels under the jurisdiction of the United States and through negotiations with foreign governments toward an eventual worldwide ban on the further slaughter of ocean mammals.

As we are becoming increasingly aware, ocean mammals are being ruthlessly pursued, harassed, and killed, both at sea and on land by hunters of many nations of the world. It is also becoming tragically apparent that many ocean mammal species will become rare, if not extinct, unless steps are taken to stop their slaughter.

The polar bear, for example, is judged to be decreasing in population and international cooperation toward proper management of the remaining species is considered essential.

The whale is an important example of an ocean mammal being threatened with extinction, and in related action the House Foreign Affairs Committee's Subcommittee on International Organizations and Movements has already held hearings on legislation (H.J. Res. 706 and H.J. Res. 730) which would instruct the Secretary of State to call for a 10-year moratorium on the killing of all species of whales. This legislation (now H. Con. Res. 387) was approved by that subcommittee before the August recess. A similar bill passed the Senate by unanimous consent in June of this year.

Information presented in connection with the foregoing subcommittee hearings revealed that regulatory measures taken by the International Whaling Commission over the past 25 years have not been sufficient to stop the steady downward trend in the world whale population. Indeed, more whales were killed during the past 10 years than ever before in the history of commercial whaling. This has resulted in a situation in which at least eight species of whales are already endangered. The largest species, the blue whale, is already virtually extinct.

Again, in my judgment, there is just no justification for the extermination of these hugh, intelligent, benign creatures. Whale products are useful, but they are not necessary to man's survival.

The situation regarding the killing of whales also presents a perfect example of the need for the type of international cooperation sought in the legislation pending before this subcommittee. Last year, for example, Russians and Japanese took some 85 percent of the 42,266 whales reported killed during the year. As already indicated, the system of international controls being used to date has obviously failed to provide adequate protection. Drastic and immediate action is required. Since the United States has exercised leadership over the last year by voluntarily ending all whaling by American citizens, we must now look to Japan and Russia to observe the moratorium—if only in order to assure themselves of whales for future controlled slaughter.

The bludgeoning and beating of seals has also been the source of much attention recently and the seal harvest is, in my judgment, a needless and appalling spectacle.

The United States now has an agreement with Japan and Canada (the North Pacific Fur Seal Convention) to kill seals on the Pribilof Islands. It expires in 1976, and the Ocean Mammal Protection Act directs the State Department to inform Japan and Canada that the treaty will not be renewed at that time. The bill proposes in its place all countries be asked to sign a treaty to stop killing ocean mammals, whether they are on land or at sea. If the Japanese and Canadians should refuse to sign such treaty, they could elect to take their 15 percent of the usual annual kill quota in dollars—as they have done in the past years—or accept 9,000 skins each per year until 1976 (or until the new treaty is signed). The bill would also ban the killing of the 42,000 seals usually destined for the United States and prohibit the entry of any skins into the United States.

In a significant attempt to stop this needless slaughter and protect these endangered ocean mammal species, H.R. 7706 (as well as other bills pending before this subcommittee) would make the slaughter of any ocean mammal by any U.S. citizen or corporation a criminal offense; ban the import into the United States of products from these animals; call for the State Department to initiate an international treaty ending the killing of ocean mammals; and designate the Pribilof Islands a sanctuary for seals, sea lions, birds, and other wildlife, to be promoted as a tourist attraction for the economic well-being of the native Aleuts.

A first offense against the act's ban on the taking of ocean mammals would be punishable by a fine of not more than $5,000 or imprisonment of not more than 1 year, or both. Subsequent offenses would be punishable by fines of up to $10,000, or imprisonment of not less than 1 or more than 3 years, or both. Any vessel subject to the jurisdiction of the United States which is employed in connection with a violation of the act would also be subject to forfeiture.

Important exceptions to the act's ban on taking ocean mammals are provided for the nation's zoos and for the use of the mammals in scientific and medical research. Exceptions would also be provided for Indians, Aleuts, and Eskimos, who would be permitted to ocean mammals for their own use (not for sale) and in a manner which accords with their customary traditions and native culture.

Mr. Chairman, it is in the matter of the legislation's provisions for exceptions to the ban on taking ocean mammals that I feel a change—in the way of an addition—should be made. In as much as I am a cosponsor of this legislation, it goes without saying that I am in full accord with its goal. My study of H.R. 7706, however, has convinced me that a degree of flexibility is needed in order to assure the attainment of this meritorious goal. This needed flexibility should be provided by the inclusion of an additional exception to those provided in sections 203 and 204 (or by other appropriate language) which would allow for the controlled scientific taking of these ocean mammals when such action is proven to be necessary for the continuation of the species itself.

While the meritorious goal of this legislation is to remove from nature the hand of man, which has too often been a destructive force toward upsetting the ingenious balance which nature, left alone, seems to maintain; it must be remembered that this balance has already been upset by man in varying degrees. The mere removal of man from nature through this or similar legislation will not, therefore, guarantee an immediate correction of existing imbalances nor assure the prevention of future imbalances resulting from actions not covered in the scope of this legislation. Thus, in my judgment we must at least acknowledge the possibility that these creatures of nature and their environment might at some future point need or benefit from the helping hand of man.

I am sure that the members of this subcommittee have ample information on the use of such scientific management programs and that your knowledge in this area far exceeds my own. At this point, therefore, it should be sufficient to merely note that many of these programs have been successful. As it is presently written, however, H.R. 7706 would absolutely preclude the future use of such scientific management of ocean mammals.

I am not proposing that the bill foster such management programs or provide any kind of direct support for them in its provisions. I am merely proposing that we not legislatively preclude the use of such programs should they prove to be necessary to assure the perpetuation of the very species we are seeking to protect through such legislation. Any use of such programs provided by my suggested change in the bill, furthermore, could and should be subject to stringent specifications and requirements.

Turning again to the present provisions of this legislation, H.R. 7706 would establish a National Seal Rookery Preserve and Bird Sanctuary under the Department of the Interior on the Pribilof Islands. The bill provides that the native Aleuts shall be given the opportunity to be the rangers and guides for this purpose and states that they shall be given any training necessary for such jobs. The bill also authorizes the establishment of a presidentially appointed commission to provide assistance in the transfer of the Pribilof Islands.

In urging favorable consideration of this important legislation, I might end by making a more philosophical observation of what the bill's goal represents. As man ascended from the caves, his own necessary struggle for survival gradually resulted in his dominance over the earth's other creatures. Unfortunately, this dominance has been accompanied to a certain extent by arrogant assumptions of superiority which have persisted in spite of mounting evidence that all life is somehow interdependent. It is past time, therefore, for man to realize that the ability to rid the earth of other living things constitutes a growing threat to his own survival. Perhaps during the breathing spell sought in this type of legislation, man will come to understand that the power to dominate carries with it an obligation for restraint and compassion.

Thank you.

Mr. Dingell. Thank you, Congressman, that was an excellent statement.

I believe we have just one more Member who desires to be heard at this time. Will Congressman Ryan please take the witness chair?

STATEMENT OF HON. WILLIAM F. RYAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. Ryan. I appreciate the opportunity to appear before the distinguished subcommittee on Fisheries and Wildlife Conservation of the House Committee on Merchant Marine and Fisheries to testify with regard to various bills concerning the preservation of ocean mammals.

Many species of ocean mammals face immediate, or long run, danger of extinction. Essential components of the delicate balance of nature, these animals have been hunted down and destroyed throughout the world. Marvels of adaptation to their environment, possessed of highly developed intelligence, often characterized by an acute sense of protectiveness for their fellows, the mammals of the world's oceans are irreplaceable.

Yet, man's arrogant rapaciousness continues. Instead of perceiving this planet as a world we share with our fellow living creatures, we plunder its wealth. Within the last 200 years, nearly 75 species of mammals alone have become extinct. Only lately has an increasingly aroused public began to rouse itself to our common folly.

These hearings which you are now holding are particularly timely, because it is the sad lot of many species of ocean mammals that they face—in a frighteningly short time, unless strong actions are taken very quickly—being added to the list of creatures no longer to be seen on this earth.

You have before you numerous bills and resolutions which take cognizance of this disaster in the making which faces many of the mammalian species which populate our oceans and seas. There are two in particular which I want to discuss. One of these—House Concurrent Resolution 77—I introduced on the first day of the 92d Congress. In the 91st Congress, I had introduced this legislation as House Concurrent Resolution 495 (and companion bills). The other is H.R. 7556, the Ocean Mammal Protection Act of 1971, of which I am a cosponsor, and of which our distinguished colleague from Arkansas, (Mr. Pryor), is the chief sponsor. This bill has been reintroduced in modified form as H.R. 10569, Ocean Mammal Protection Act.

Title I of the Ocean Mammal Protection Act of 1971 provides a statement of findings and declaration of policy. I think this title particularly apt, because it accurately articulates the situation we face at this very moment and which demands aggressive action on the part of this committee to avert. Section 101 states the finding that "ocean mammals are being ruthlessly pursued, harassed, and killed, both at sea and on land by hunters of many nations of the world." Further, "many ocean mammals will become rare, if not extinct, unless steps are taken to stop their slaughter."

Thus, it is declared to be the public policy of the United States "to protect all ocean mammals from harassment or slaughter"; and, in addition, to enter into negotiations with foreign governments and through interested international organizations "with a view to obtaining a worldwide ban on the further slaughter of ocean mammals."

Title II of the Ocean Mammal Protection Act of 1971 sets up the prohibitions which will help achieve the end to the slaughter which now occurs. Section 202 (a) bars, first, the taking of ocean mammals by persons or vessels subject to the jurisdiction of the United States; second, the use of any port, harbor, or other place for any purpose connected in any way with such taking; and third, the transportation, importation, offering for sale, or possession of ocean mammals or parts thereof.

Section 203 (a) properly makes exception for the indigenous populations along the ocean coasts—that is, Indians, Aleuts, and Eskimos—to take ocean mammals for their own use but not for sale. Thus, the Ocean Mammal Protection Act in no way seeks to destroy the native cultures which have developed the hunting of ocean mammals and the use of the products obtained from these mammals, as a part of their way of life.

Additional provisions of title II provide strong penalty provisions, which are, I believe, essential to make this legislation more than just compassionate rhetoric.

Why must this legislation be enacted? First, let me discuss the slaughter which we, along with other nations of the world, have conducted against whales. The whales are among creation's most intelligent creatures. They communicate with each other, using numerous sounds in their language. They demonstrate an intense loyalty to each other, so that a school of whales will beach itself and thereby commit mass self-destruction in its efforts to come to the aid of a captured or beached brother. Certainly, man's rapaciousness in hunting down these creatures cannot be condoned. We are involved, not in the extermination of a vicious, disease-carrying animal such as the rat, but rather, in the slaughter of a complex, intelligent and harmless animal of the highest order.

What has man succeeded in doing? In December 1968, the Committee on Rare and Endangered Wildlife Species of the Department of Interior's Bureau of Sport Fisheries and Wildlife compiled a list of "Rare and Endangered Fish and Wildlife of the United States." This compilation listed 6 large whale species of just American waters which are in jeopardy. Of the gray whale, 8,000 were estimated to be left in the California herd, as of 1965. The compilation listed "perhaps a few hundred in the Atlantic" as remaining of the blue whale, and less than 1,500 in the Pacific herd. Less than 5,000 humpback whales remained in the north Pacific. As for the Atlantic right whale, the compilation stated that "possibly only a few hundred persist." The same dire situation existed for the Pacific right whale. As for the bowhead whale, there were an estimated 1,000 in the Bering-Chukchi-Beaufort Sea population, with lesser numbers elsewhere.

The fate of the blue whale is a tragic object lesson of this pillage which we have been committing upon nature. The blue whale is the largest creature ever to inhabit the earth. An adult blue whale measures up to 98 feet long and weighs perhaps as much as 160 tons. Even its new-born young are larger than a full-grown elephant and are reputed to consume more than one-half ton of milk daily.

At the beginning of this century, the blue whale population was over 100,000. Today, only a few hundred blue whales, perhaps as many as 3,000 according to some estimates, populate our entire planet. As Lewis Regenstein has written, in a recent article entitled "The Vanishing Whales: Long Odds Against Survival," which appeared in the August 22 edition of the Washington Post:

> There is serious doubt that enough males and females will be able to find each other over the great expanse of the ocean to enable the species to breed and perpetuate itself.

James Fisher, Noel Simon and Jack Vincent have starkly identified the cause of the blue whale's demise in "Wildlife in Danger," at page 60:

> The demise of the dinosaurs remains veiled in mystery and surmise, but there is no need to speculate on the reasons for the disappearance of the blue whale; the rapaciousness of man is wholly responsible. Seas and oceans comprise 70 per cent of the earth's surface, and one would have thought this ample habitat allowed more than enough space for the whale's survival, but pursuit of the whale has been so persistent that nowhere on the face of the sea or in its uttermost depths, however remote or vast or forbidding, is there any longer a true sanctuary beyond the reach of man's ruthless exploitation.

It may well be too late for the blue whale. The Asiatic gray whale population has apparently disappeared. The largest known colony of nominally protected southern right whales was wiped out in 1962. Threatened with imminent extinction are the humpback, the sai, the finback, the bowhead, the sperm, the gray, and the right whales. The frightening pace at which extinction is coming upon these species is indicated just by examining the figures for the estimated average population size of the fin whale, published by the International Whaling Commission:

1955–6	110, 000
1956–7	101, 700
1957–8	89, 000
1958–9	88, 600
1959–60	65, 700
1960–1	59, 700
1961–2	45, 300
1962–3	40, 000
1963–4	32, 400

This need not be. Whales do not threaten man. There is no need of self-defense to kill them. They do not endanger our crops, crowd our territory. The commercial products which are derived from them are not unique: Whale meat, used for dog and cat food and on mink farms, can easily be replaced by other meats; whale oil can easily be replaced by other products.

In simple terms, then, we are embarked on destruction—pure and simple. This is why the Ocean Mammal Protection Act of 1971 must be enacted into law.

Another creature which would be protected by this legislation is the polar bear. The male polar bear averages about 900 pounds, although specimens twice as heavy have been recorded. It stands about 5 feet at the shoulders and is 7 to 8 feet or more long. The polar bear is found in the Arctic, distributed around the Pole. For much of the year, it lives on the pack ice of the Arctic Ocean. A magnificent animal—and again an animal which in no way threatens man—the polar bear, like the whales, is endangered. The largest and most flourishing white bear population is found in the Canadian Arctic where only 6,000 or 7,000 exist—possibly more than half the world's total. The bear population of Greenland, once high, has severely declined as a result of excessive hunting. Similar overhunting has reduced the population in the Soviet sector of the bear's range.

The decline of the polar bear is traced in "Wildlife in Danger," by James Fisher, Noel Simon, and Jack Vincent, at pages 71–72:

> The decline of the polar bear dates from the 17th century, when the opening up of Arctic waters to shipping led to vigorous hunting. During the next centuries white bears were heavily hunted in Spitsbergen, Novaya Zemlya, islands in the Bering Sea, Baffin Bay, Hudson Bay, and many other places. The decline of the whaling industry in the latter part of the 19th century caused the whalers to transfer their attention to sealing which in turn led to mounting pressure on the polar bear, notably in the Canadian Eastern Arctic, the Greenland Sea, Franz Josef Land, and Spitsbergen. As the fur trade developed, the exploitation of the bear was further stimulated.
>
> For countless years the Arctic seas have provided the polar bear with adequate security; but it is practically defenseless against hunting with precision weapons from powered boats (which are growing very popular in some parts of the animal's range) or from aircraft. Hunting from aircaft has recently become a favoite sport in Alaska where polar bears are fairly common on the ice that lies north of the Bering Straits. * * * This form of hunting has now been banned over the mainland and territorial waters; but there is at present nothing to prevent the technique from being employed in international waters beyond the 3-mile limit.
>
> Dr. S. M. Uspensky, the Russian authority on the species, believes that in recent decades the range of the polar bear has been gradually reduced, as a result of the onset of milder climatic conditions in the Arctic. * * * A contributory factor has been the increase in the numbers of humans and domestic livestock in the Arctic in recent years, which has resulted in a higher incidence of disease, notably from the Trichinella parasite, which has inevitably affected the bear.

Thus, we see a magnificent creature declining. He does not threaten man. He offers no commercially essential products for man. He is, however, a handsome trophy, and so he is sacrificed to those who mark their accomplishment by the number of heads over their mantle.

Now it is clear that the United States, and the United States' citizens, do not bear the sole blame for the devastation of ocean mammals. Japan and the Soviet Union, in fact, account for most of the world's whaling. Not all hunters of polar bears are Americans. But, even given that it is not within this country's exclusive control to halt the slaughter of whales, polar bears, walruses, and other species, our actions can have an enormously powerful trickle-down effect. For example, while we engage in little whaling, we do account for about one-third of the consumption of whale products. If we close our doors to the importation of ocean mammal products, therefore, we inevitably must decrease the profitability of their destruction, and, in turn, we increase the likelihood of cessation of that destruction.

Thus, we must ban the import of all ocean mammal products. The Ocean Mammal Protection Act does this.

Since we do participate directly in the destruction, we must also ban this, as the Ocean Mammal Protection Act does. There must be no loopholes, no exemptions, save the ones provided in the act for the native populations and limited so that the taking must "be done in accordance with customary traditions and as an adjunct of the native culture." Thus, we cannot allow a loophole for tuna fishermen, in whose nets some 250,000 porpoises die annually.

Third, we must encourage the Secretary of State to negotiate international agreements for the protection of the ocean mammals. Some international activities do exist—the International Whaling Commission, established pursuant to the International Whaling Convention, is one example. Another example of international cooperation was the First International Conference on Polar Bears, held at the University of Alaska in September 1965. However, international organizations and agreements are thus far too weak. The International Whaling Commission, for example, has no enforcement powers, and in many respects its efforts at preservation have been stymied. Consequently, our Government must undertake efforts, through the United Nations, for example, to achieve binding international accords.

In fact, I would recommend working toward a moratorium on all killing of ocean mammals, not only by means of the Ocean Mammal Protection Act, which only applied to the United States, but worldwide. At the least, this moratorium must run for 15 years, so that our scientists can determine what chances of survival remain for ocean mammals, and what can be done to assure this survival before these magnificent creatures are banished by man, through his arrogance and stupidity, from the face of the earth.

During the moratorium we must work for title III's prescription: "International agreement or agreements" which "should seek to outlaw all killing of these mammals for any reason."

HOUSE CONCURRENT RESOLUTION 77

I now want to turn to House Concurrent Resolution 77, of which I am the chief sponsor and in which 17 of my colleagues have joined in sponsoring. These 17 are:

Mr. Halpern, Mr. Hanley, Mr. Horton, Mr. Hosmer, Mr. Koch, Mr. Kyros, Mr. Moorhead, Mr. Morse, Mr. Nix, Mr. Obey, Mr. Rosenthal, Mr. St Germain, Mr. Symington, Mr. Vigorito, Mr. Waldie, Mr. Whitehurst, and Mr. Wolff.

I have delayed discussing House Concurrent Resolution 77 until first discussing the Ocean Mammal Protection Act because my resolution's aim is very relevant to that expressed in title IV of the latter act. Both of which concern the slaughter of Northern fur seals on the Pribilof Islands.

House Concurrent Resolution 77 has two operative provisions. The first of these expresses the sense of the Congress that the Secretary of the Interior shall prescribe and shall implement with all possible speed and urgency regulations for the harvesting of Northern fur seals which insure that the seals are quickly and painlessly killed before skinning. The second clause provides that penalties be prescribed by the Secretary for violation of the regulations which he shall prescribe and implement in accordance with this resolution.

Once again, we have a tragic example of a cruel practice employed to accomplish an unneeded end. The seals are slain solely for their furs, which in turn are employed to satisfy the market for an unneeded luxury. The seals do not threaten man, nor do they threaten his food supplies. No product which they apply is irreplaceable. The reason why they are victims of slaughter is because they fill an acquired desire for seal fur garments—a desire which can be satisfied in other ways.

Unfortunately, international circumstances would appear to bar any immediate cessation of the seal harvest. The premise for the harvest is an international convention, first agreed to in 1911 by the United States, Great Britain, Japan, and Russia. The aim of this convention was to end pelagic sealing—that is, seal hunting at sea—which had contributed so greatly to the enormous decrease in Northern fur seals. Should the international agreement which now exists be unilaterally terminated by the United States, it is very likely that at least some of the other parties to the convention would resume large scale pelagic sealing—an eventuality which would be very detrimental to the Northern fur seal.

In this regard, I want to refer to the Ocean Mammal Protection Act, as modified, which I have previously discussed. Title IV of that act expresses the sense of the Congress that the Secretary of State should immediately notify the other parties to the North Pacific Fur Seal Convention, signed on February 9, 1957, as the latest successor to the 1911 Convention, that the United States does not intend to extend its life beyond 1976. Further, title IV expresses the sense of the Congress that the convention should be permitted to expire in 1976, after its current termination date in 1975.

In light of the past history of the northern fur seal—that is, the great depradations following upon the pelagic sealing method which used to be employed—I must oppose any termination of the convention unless we have an international binding agreement that such sealing will not be resumed. While title IV of the Ocean Mammal Protection Act does express the sense of the Congress that the Secretary of State should immediately initiate negotiations with the parties to the convention and other interested nations for the purpose of achieving an international ban on all killing of northern fur seals, I do not believe that we can unilaterally terminate our participation in the convention prior to the obtaining of such a ban. Thus, I particularly stress the importance of section 403 of the modified Ocean Mammal Protection Act, which provides for renewal of the convention if a new treaty cannot be negotiated.

The Ocean Mammal Protection Act in the interim prior to a new treaty calls for termination of that portion of the harvest—70 percent of the seals killed—which is allocable to the United States under the convention. In principle, I am in accord with the step of at least terminating the U.S. percentage of the kill. However, I am fearful that this step might be interpreted—purposefully—by one or more of the parties to the convention as being an abrogation or violation of the convention, justifying their resumption of pelagic sealing, and I stress the importance of this consideration.

Now I want to return to the thrust of House Concurrent Resolution 77, which is not cessation of the seal harvest or even its decrease, but rather, revision of the practices employed in that harvest.

The Fur Seal Act of 1966, charges the Secretary of the Interior with the management of the fur seals on the Pribilof Islands. His Department's Bureau of Commercial Fisheries supervises the harvest. The kill is largely limited to 3- and 4-year old bachelor males that congregate on the edge of the seal rookeries.

The Department of the Interior claims that this harvest serves conservation ends, stating in a publication entitled "Fur Seals of Alaska's Pribilof Islands," issued by the Department, that:

> The Pribilof rookeries can support only so many seals. The Bureau of Commercial Fisheries maintains the seal herd at its maximum level of productivity. Animals surplus to the needs of the herd are harvested each summer. If man does not do it, nature steps in. Some persons, who have the best intentions, have

the impression that man could simply leave the fur seals alone and nature would see to it that they lived happily ever after. It is not true. Nature would see to it that the surplus was killed off. And when nature sets about redressing a population imbalance there is no place for mercy in the natural process. Nature has no compunction over killing pups slowly with parasites or starvation or any other way. People need to recognize this inescapable biological fact in considering what the consequences would be if man were to abandon his management responsibilities.

This reasoning is very dubious. The same publication states that the Pribilof Islands herd is now estimated at some 1.5 million animals. This number is nowhere near former totals, and clearly disputes the contention that increased numbers would be detrimental to the animals. According to Mr. Seton H. Thompson, U.S. Fish and Wildlife Service, writing in the 1969 edition of Encyclopedia Americana on the subject of "Seals and Sealing" (vol. 24, pp. 480–483), at the time of the seal herd's discovery in 1786, there were at least 5 million seals. In 1948, there were 3,837,131 animals in the herd. Thus, under the supposedly enlightened conservation concerns of the Department of the Interior, the herd has decreased in the last 22 years by approximately 2 million—even allowing for inclusion in the earlier totals of the Japanese and Russian herds—without any specified diminution in territory available to the animals.

Unfortunately, so long as other nations do not enter into an international accord banning both pelagic sealing and killing of seals, or at least allowing cessation of the killing of those seals currently allocable to the United States, under the existing convention, it would seem that the harvest must continue. But, let us be clear. This harvest stems from the world's demand for fur seals, and the even more disasterous consequences which would occur were pelagic sealing resumed. Its merit does not lie in maintenance of the vitality of the Pribilof seals, as the Department of Interior indicates.

The annual harvest commences with the bachelor seals being driven from the shore to the fields beyond. The distance varies from a few hundred yards to over half a mile to sites where the killing takes place. The actual killing is performed by man armed with hardwood clubs 155 centimeters long. They are assisted by one or two men who divide off small pods, or groups, of seals, about 10 in number, from the main herd, driving them toward the killers who then club them on the top of the head. Men known as stickers go around the clubbed animals and cut their skins in the midventral thoracic region, followed by pushing the knife into the thorax. The heart is then punctured by the knife. After sticking, other groups of men come to skin the seal.

According to the report prepared by Dr. Elizabeth Simpson for the World Federation for the Protection of Animals and published in 1967, about 13.6 percent of the animals showed evidence of the animal having received two or more blows with the club, which is supposed to kill them instantaneously with one blow. Dr. Simpson also noted that the length of the drives of the seals to the slaughter grounds is in some locations too long, resulting in "unnecessary distress on the part of some of the seals."

Clearly, then, the so-called merciless seal harvest is not quite as beneficial as it has at times been portrayed. I do want to be frank, however, and acknowledge that Dr. Simpson did conclude that the present clubbing technique is probably the best, in comparison with the use of the captive bolt pistol, electrical stunning, and carbon dioxide stunning prior to sticking. She so concluded on the basis of the premise that "any method involving more handling of the animals would * * * be a step in the wrong direction." (P. 5.)

Another study of the Pribilof Islands harvest reached similar conclusions. This study was made by the task force to study alternate methods of harvesting fur seals, and was issued in 1968.

We are, it appears, left with a difficult conclusion. Clubbing has been supported by studies. However, there are some directions toward which we should be pushing. First, we should be seeking international accord on totally banning seal killing. Second, we should be impressing upon the Secretary of the Interior the importance of developing more humane methods of killing; so long as the harvest continues. To this end, I think it particularly appropriate that House Concurrent Resolution 77 be enacted into law.

I would like, before closing, to make reference to a very real concern which has been voiced. This is the economic situation of the individuals involved in the Pribilof Islands harvest. The total population of the Pribilof Islands is approximately 600 people. Their only income producing industry is the seal hunt. However, I want to stress that this industry is not the result of indigenous cultural patterns: the Russians, who originally owned the Pribilofs, brought Aleutian people from the Aleutian chain of islands to the Pribilofs, where they were kept in bondage as slaves for the purpose of conducting the slaughter. Second, I want to stress that I believe it entirely appropriate that should more humane methods of harvest be instituted, the people presently employed be trained to carryout these methods. Should the harvest be terminated, I believe Federal assistance to develop new industry, to assist in moving the Natives, should they wish to leave, and to retrain them, would be entirely in order.

Finally, I believe similar assistance should be provided the employees of the Fouke Fur Co., in Greenville, S.C., which is the only American company engaged in processing and preparing the seal pelts.

Mr. DINGELL. That was certainly a very enlightening and informative statement. The Chair thanks you for appearing.

Mr. RYAN. It was my pleasure, Mr. Chairman.

Mr. DINGELL. Our next witness is Mr. August Felando, accompanied by Mr. Joe Medina, American Tuna Boat Association.

Gentlemen, we are very happy to welcome you for such a statement as you choose to give.

STATEMENT OF AUGUST FELANDO, AMERICAN TUNABOAT ASSOCIATION, ACCOMPANIED BY JOE MEDINA, SKIPPER OF TUNABOAT "QUEEN MARY"

Mr. FELANDO. I am August Felando. I am appearing before this subcommittee on behalf of the American Tunaboat Association. I am the general manager of this nonprofit fishery cooperative association, incorporated under the laws of the State of California, with its principal office of business in San Diego, Calif.

The American Tunaboat Association (ATA) has been in existence since 1923. The membership is comprised exclusively of tuna-fishing vessel owners. Annually our members catch and unload over 60 percent of all tropical tunas landed in the United States by vessels operating from the United States. Some of our members operate from Puerto Rico.

There are 132 U.S. tuna clippers; that is, vessels that have a carrying capacity of 100 short tons of frozen tuna or more. The total trip carrying capacity of this fleet is about 60,000 tons. There are 12 additional vessels under various stages of construction in the United States.

We oppose the legislation before this subcommittee calling for the complete protection by law of all marine mammals.

Our interest in the proposed bills arises from the fact that the term of "marine mammal" as used in such bills includes porpoise. For over 40 years, U.S. tuna fishermen have used porpoise to locate and capture tunas in certain areas of the eastern Pacific. Within the past 25 years, specialized fishing skills and techniques have been developed within the U.S. tuna fleet to better utilize the unique relationship that exists between certain tunas and porpoise.

In great measure, the success of the U.S tuna fleet in meeting the challenge offered by every other tuna producer in the world that sells frozen tuna in the free market of the United States, can be attributed to the fact that the U.S. fishermen and the porpoise have been learning how to live together in accomplishing the task of capturing the tunas. It is no secret in worldwide fishing circles that the U.S. tuna fishermen have a competitive advantage over foreign fishermen in using the purse seine technique on tunas that travel with porpoise.

To a substantial degree, the future of the U.S. tuna fleet as a viable, competitive fishing fleet is essentially connected with porpoise. This is one reason why strong emotional feelings arise within our fleet concerning the treatment of porpoise. We want to continue the use of porpoise to help us locate and capture tunas. We are against any activity of man that will reduce our opportunities to work with porpoise in capturing tuna. Under H.R. 6558 and other identical bills, the terms "take" or "taking" or "taken" are defined so that it would make our use of porpoise in catching tuna unlawful.

In using porpoise to catch tuna, it is necessary to first locate the porpoise. Because porpoise are air breathers and stay close to the surface, it is easier for the fishermen to spot them more easily at a distance than they can fish. Upon sighting a school of porpoise, the tuna vessel proceeds to pursue or chase the porpoise for the purpose of determining whether a tuna school is associated. In making this determination, the tuna vessel will repeatedly maneuver in and about the porpoise, looking for signs that the tuna are following the porpoise. One could classify this searching maneuver as a form of harassment. If no tuna are detected with the porpoise, the tuna vessel leaves and proceeds to look for other ocean signs that may lead to the discovery of tuna.

Upon examination of the language used in section 201(c) of H.R. 6558, and in considering the above facts related to a very common and innocent example of how U.S. tuna fishermen use porpoise to locate tuna, it would be possible to conclude that the tuna vessel had committed a series of unlawful acts in that it pursued, hunted, and harassed porpoise, or at least that such vessel attempted to pursue, hunt, or harass the porpoise in trying to locate and detect a school of tuna.

It would appear that the definition offered in section 201(c) lends itself to an unreasonable analysis and to the acceptance of conditions that are totally unrealistic.

The unacceptability of section 201(c) becomes even stronger when one undertakes an analysis of section 205 (Forfeiture). Under section 205(a) the vessel, "its tackle, apparel, furniture, appurtenances, cargo, and stores shall be subject to forfeiture." According to a variety of legal authorities, this language creates a property right in the Government immediately upon the commission of the illegal act. Further, the rights of other persons cannot be respected, although already existing, or subsequently obtained, no matter how innocently acquired. An extremely harsh penalty—the loss of a $2 or $3 million fishing vessel, along with its valuable gear and cargo—merely for pursuing and interfering with a school of porpoise to see if any tuna are about.

Please refer to the following cases on this point: *United States* v. *Grundy and Thornburgh*, 3 Cranch 338; 2 L. Ed. 459; *1960 Bags of Coffee*, 8 Cranch 398, confirmed in *Caldwell* v. *United States*, 8 Howard 366; 12 L. Ed. 1115; The *JAMES G. SWAN;* D.C.D. Wash., N.D. (1896) 77 F 473–475; *600 tons of Iron Ore* (D.C.D.N.J. 1881) 9 F 595–601. Also see 25 C.J.S. 259, at page 571.

It is our preliminary view that the proposed bills, by their very terms and language, give rise to a need for considerable examination, analysis, and study. We would like to withhold further comment on other specific points raised by the proposed bills at this time, because we believe it necessary to explain to the subcommittee the techniques we have developed in using porpoise to capture the tuna after we have detected them to be associated with a porpoise school. It is in this area where the proposed bills in defining the critical terms of "take" or "taking" or "taken" have a substantially harmful impact on the tuna fishery.

With me is Mr. Joe Medina, master and managing owner of the tuna vessel *Queen Mary*. He has been engaged in the fishery practically all of his life. His father was one of the early pioneers and leaders of the tuna fleet. Mr. Medina is available for the purpose of explaining how the vessels in the tuna fleet use porpoise to capture tuna. He will further explain the many techniques, skills, and equipment fishermen have developed through the years in working with porpoise to capture tuna. He will discuss in detail the recent technique that he and his first cousin, Harold Medina, captain and managing owner of the *Kerri M*, have developed in working with porpoise schools.

In recent years, a great deal of interest has been generated about how the U.S. fleet uses porpoise to capture tuna. This has been particularly true with respect to the curiosity developed by our competitors, the foreign tuna fishermen. Although we have had many scientists aboard our vessels, ranging from employees of the Federal Government to those of the Inter-American Tropical Tuna Commission, no coordinated program of study dealing with the porpoises and their association with the tunas has been developed. Various articles, reports, and papers have been published on the subject since 1966. To our knowledge, no specialized report concerning porpoise has been prepared by the Inter-American Tropical Tuna Commission.

In the past 2 years, we have been working with the National Marine Fisheries Service in attempting to work out more information about the porpoise and in developing new ideas concerning the assistance to be given porpoise to leave the captured tuna. Necessarily, insufficient data has been developed in this period of time by the fleet concerning the impact of their using the porpoise to capture tunas on the porpoise population.

Recently, the American Tunaboat Association, along with other organizations of the tuna industry, have worked out a program with the National Marine Fisheries Service. Under this program we hope to gather specific information on the success of the techniques developed by the fishermen to assist the porpoise in helping themselves to escape from the captured tuna.

Under this program, Government scientists will be aboard the vessels for the purpose of observing the techniques used by the fishermen. In addition, the fishermen will provide porpoise specimens to the fishery service. Plans are also being developed to have special charter trips, wherein a set number of days will be devoted exclusively to porpoise research. Preliminary views seem to indicate that this program will be substantially completed by the end of 1972. It is our opinion that upon the completion of this program, the industry and the Government will be in a better position to evaluate the apparent problem associated with porpoise and tuna fishing.

Thank you.

Now at this time I would like to turn to Mr. Medina. He does not have a prepared statement, but I believe that it will be comprehensive enough and of extreme value to this committee.

Mr. DINGELL. We are very interested in receiving Mr. Medina's statement and we look forward to hearing from him.

Mr. MEDINA. Mr. Chairman and members of the committee, I am Joe Medina, manager-owner and master of the fishing vessel *Queen Mary.*

My family, my grandfather and father, were pioneers that started the tuna industry in San Diego and I have been actively engaged for the past 25 years.

I would like to go back. The fishermen and everybody have been associated with the porpoise for the past 45 years. Up until the year 1958, the fish that was called bait fishing, we actually fished with poles, used to go onto a school of porpoise and chum live bait and take the tuna out with poles.

In 1958, we converted to purse seine net fishing where we seine with a large net.

The problem we had then and it has been a problem we have had in the last 13 years, we corral the porpoise within our nets and the problem was getting the porpoise out alive.

When we first started, the only method we knew was the crew jumping in at the risk of danger to their lives and helping the porpoise out. We had to do it to save the porpoise.

Then 3 years later, we developed a new method what we call backing down where we actually roll in half our net, secure the front end and actually back the vessel down and slide the whole net and actually pull the net from underneath the porpoise. This was a big saving on the porpoise.

The one problem that developed was a few porpoise would kill themselves getting tangled up in the net.

Two years ago, me and my first cousin, Harold Medina, a manager and captain on the *Kerri M* developed a new netting. We tried it last year on my cousin's boat and I am happy to say it has been a big success.

The first of the year, we compared the *Queen Mary* together and we had the old netting and he had the new and we both made sets on schools of porpoise and tuna at the same time. He was through an hour before we were.

Out of 1,500 porpoises, Harold only had four porpoises left in the net after backing down and these were removed by hand.

We, making a set on another school, finished backing down and we had 50 or 60 porpoise that got tangled. When they are tangled, we drop back down to help the porpoise out and save the ones still alive.

One point I am trying to make, the fishermen will do anything to save the porpoise. We always have and always will, but I think this new net has been the salvation for us and I think we have the problem licked.

As late as this last Wednesday, I talked to my cousin and he is making a movie on this backing down. The movie is—or shows that he set on a school of 2,000 porpoise and after backing down, he had four porpoise left and those were taken out alive. So out of 2,000 porpoise, not one was killed.

The one point I am trying to make is I feel in a year the whole fleet will convert over and everybody will have the new net. It takes about 6 months for delivery. National Marine Terminal has ordered this webbing and they have 100 bales and it takes two bales to make this adaptation and they will have that available in a short time.

We have changed our net over and I feel in a short time that the whole fleet will adapt this new technique.

I also talked to my vessel this past Wednesday. They have the webbing on this trip and they say it is like the difference between day and night. It has been a real help.

We have the problem licked. I say this is one thing the fishermen always try to do is save the porpoise caught because without them we would not be in business.

Mr. FELANDO. Mr. Chairman, we have a film here that was produced by one of the canners. It was filmed in 1960 and it is a very short film, but I think it is a dated one.

We will leave this film with the committee. We hope that when the *Kerri M.* returns home with film to have the film available to you within a month. Then I think you will be able to see what was done in 1960—where actually in 1960 aboard this vessel the fellows were in the net manually lifting the porpoises out.

We think in 1971 you will see the vast change that has occurred and we believe the success of this new modification will be shown in the new Medina net.

Mr. DINGELL. I know the committee is grateful to you for the very helpful statement.

We will certainly receive the film that you are alluding to.

Did you want to show the other film this morning?

Mr. FELANDO. I do not think it is necessary. I see you have a long witness list and I think there is a narration in it.

This film has been shown all over the country for the last 11 years and what is available is just a 3-minute portion.

I think at the committee's convenience you can see the film at that time. There is a narration that explains exactly what is going on.

Mr. DINGELL. You are one of the most considerate witnesses we have ever had in these places and I would say that I am always glad to see you, but I think after this morning I shall be even more so.

I want to thank you and commend you for your cooperation with the Committee.

Mr. Pelly?

Mr. PELLY. Just one short question. In H.R. 10420 the definition on page 3, the term "take" means to harass, hunt, capture, or kill, or attempt to harass, capture or kill any marine mammal.

Do you consider that the incidental taking of a porpoise under the new method, maybe an occasional killing of a porpoise with the new nets, would make you liable to these very strong penalties under that bill?

Mr. FELANDO. Yes, I believe so. I think the language itself is so broad in that definition I think it would cover the situation where we do not actually kill the porpoise.

The porpoise actually get caught in the webbing and if they are not able to get out in time they will drown. But I feel any incidental death to the porpoise in the net would be covered by that definition section, Mr. Pelly.

Mr. PELLY. In other words, in order to relieve you from liability the word "intentional" should be in the definition of killing, or harassing, or hunting, would that satisfy you?

Mr. FELANDO. Yes, I believe that the use of the words expressing wilfullness or intent will be satisfactory because certainly that has not been our practice and it not our intent.

Mr. PELLY. It would be too bad if someone who really uses the porpoise as a part of their fishing technique in locating this and whose interest is in keeping them alive and not destroying them could be penalized with such penalties that they accidentally, through their operation, drown a porpoise or two.

Mr. FELANDO. We, as a matter of policy, would be opposed to the killing of porpoises for the purpose of producing a product. It would actually seriously damage the future of our business.

Mr. PELLY. Your testimony unequivocably opposes all these bills, as I understand it.

Now, if this were changed, would it change your position on the legislation?

Mr. FELANDO. Yes, it would.

Mr. PELLY. Thank you, Mr. Chairman.

Mr. DINGELL. Mr. Kyros?

Mr. KYROS. Thank you, Mr. Chairman.

Is that net which you just explained now universally used by all tuna fishermen?

Mr. FELANDO. No, the problem has been the one that Mr. Medina worked out last year and the net was just made available at the beginning of this year. It took Mr. Joe Medina 6 months before he was able to get the net and just before I came here from San Diego I talked to one supplier. They have 100 bales of webbing now and it takes two bales of webbing to make the modification.

To my knowledge at the present time there are eight or 10 vessels that have the modification and we expect, on the basis of discussions that I have had with vessel operators, we expect most of the boats to change over by the beginning of next year.

On the basis of just how meaningful it is in the success of the fishing operations and on the basis of what has happened in the fleet before, we just feel that all the vessels will be forced by virute of the competition alone, to make the changeover.

At that time, I think we will be able to come up with strong evidence that this new modification is very successful.

Mr. Kyros. If they are going to modify without any legislation causing them to do it, then what about cost of changeover?

Would not there be individual tunaboat operators who would not change because they are in areas by themselves?

Mr. Felando. No. The cost is betwen $2,200 and $3,000.

In one set, in one successful set, you have already doubled that.

Mr. Medina. Let me say not only for saving the porpoise, but when I am out there and I make a set and I finish an hour before my competitor, I guarantee you he is going to put that webbing on. He will have to, to compete.

We do not have enough data, but we are really happy with the result. I think it is a fantastic thing.

Mr. Kyros. So a law that was in accordance with your testimony this morning would not be oppressive to you or the industry, or to the tuna fishermen.

Mr. Felando. My answer would be yes right now, without seeing the language.

Mr. Kyros. Well, in terms of your language, and with the use of your net method. Would that be oppressive to the tuna industry?

Mr. Felando. It would not be oppressive. We are hoping that we can develop even better techniques than what we have now.

We think this is the answer, but it is too early to say.

This is going to take us a little time to satisfy anyone who examines the process.

My answer to you right now is "Yes."

Mr. Kyros. There is no way other than the net to avoid catching dolphins along with the tunafish, I take it?

Mr. Felando. We have tried all kinds of ways. We have tried to work with sounds. We have known that for over 40 years that certain sound frequencies have an impact on porpoise.

Right now, we think that our best answer is this new modification of the net, but we are always ready to hear of anything new or anything better than what we are doing.

Mr. Kyros. Has the Federal Government, through the Bureau of Commercial Fisheries, presented ideas and suggestions to you?

Mr. Felando. We talked with them in early 1970 about a gate. Actually, some of the fishermen have tried a gate earlier and we felt that their gate system—and actually we had a vessel try it out in December 1970 and we felt that it would not work. We think recent experiments by the Government have shown we were right.

Mr. Kyros. People are very concerned right now about Campbell's products. Have tuna sales gone up?

Mr. Felando. Right now, we have no difficulty selling our product to the canners. I can only assume that sales are good.

Mr. Kyros. I notice my daughter's cat eats tunafish in the morning. Are you selling a lot of tunafish for animal food?

Mr. FELANDO. Yes; I think the gross sale figures for all pet foods is around $80 million a year. How much can be attributed to tuna, I do not know.

All of the tuna is used, if not for human food, for pet food and other products, ranging from vitamins to cattle feed.

Mr. KYROS. What about the west coast? Are there Japanese tuna fishermen out there?

Mr. FELANDO. Yes; they are our main competitors.

Mr. KYROS. Do you know if they have indicated the same concern for the dolphin and porpoises that you have this morning?

Mr. FELANDO. They are trying to learn our techniques and I think they have one vessel that just this year tried to fish in our area and compete with us, but mostly their techniques are with the long line. Most of the fish is caught by long line and they have not yet made a substantial impact in the type of gear that we are operating.

Mr. KYROS. Not nets, but hooks?

Mr. FELANDO. That is right.

Mr. KYROS. So they do not have the same problem with the nets that you do with the dolphins?

Mr. FELANDO. Not as yet, because they do not have as many vessels. They have undertaken a program now to try to figure how we are doing it and so we expect them to come in within a short time and compete directly with us.

Mr. KYROS. Are there any other foreign fishermen who fish the tuna?

Mr. FELANDO. Oh, yes, the French, Spanish, Mexicans, Costa Ricans, Panamanians, Canadians, Ecuadorians, and Peruvians.

Mr. KYROS. Do you think we need an international agreement with them to make universal use of these nets?

Mr. FELANDO. There is no question in my mind that taking singular action against a U.S. fisherman will not solve this problem.

Mr. KYROS. So there should then be an international law?

Mr. FELANDO. I think the answer is really solving the technical problem and I think by working with us in solving this problem I feel that having a law in itself will not particularly, if it is directed toward U.S.-flag vessels, will not solve the problem.

I think it is a technical problem. That is where the efforts should be directed. I think we have the answer. Time will show if we are right.

I would like to see more attention toward the problem solving rather than just the passing of laws.

Mr. KYROS. Other than your own initiative in solving it, you say that nothing else has been done, particularly by the Federal Government?

Mr. FELANDO. They have tried to come up with ideas in recent years and we have worked with them, but the idea that they came up with which was a gate, we advised them that we felt that this was not the answer and so their first efforts in this area with regard to these escape mechanisms have not been successful.

So far the facts are showing that our escape mechanisms, our devices through the years have been more successful.

Mr. KYROS. Thank you very much. I appreciate your testimony.

Mr. DINGELL. Mr. de la Garza?

Mr. DE LA GARZA. No questions.

Mr. DINGELL. Mr. Potter?

Mr. Potter. Thank you, Mr. Chairman.

I think the most significant part of what you are telling the committee is that, if I understand you, it is to the economic interest of the industry to use this Medina net.

Is that an accurate summary?

Mr. Felando. Yes; it is to our economic interest to keep the porpoise helping us and it is also extremely important in doing so, not only to have them around to help us, but also in the process of catching tuna, to get them out of the way as quickly as possible because this gives us the competitive advantage in operating our vessels.

Mr. Potter. Incidentally, what species of porpoise are you talking about?

Mr. Felando. I am not an expert. We call them spinners and spotters and white bellies.

These are the terms that we use in the industry.

Mr. Potter. Primarily dolphins, I assume.

Mr. Felando. Well, the word dolphin confuses us. I know some people use dolphin and porpoise and we just use, in the industry, we just call them porpoise. I do not know whether they are dolphin or what.

Mr. Potter. Am I correct that right now the American tuna purse seine fleet is the only purse seine fleet of any significance presently fishing for tuna?

Mr. Felando. No. You would have to say at the present time that Mexico has a growing fleet in the purse seine business.

I would say that is also true of France and Spain. There is a developing fleet under the Panamanian flag.

There is a definite indication that we are not there all by ourselves.

The purse seine, there is a growing recognition that this is the way to catch tuna, and it is a question of time how long we will maintain leadership.

Mr. Potter. I understand that for many years it was this technique which gave us a competitive edge—that we could use it and others could not.

Mr. Felando. Well, it is just the fact that we originated the technique. Now, this knowledge is being transferred and picked up by foreign fishermen.

Mr. Potter. Have you any indication as to the extent to which the Medina net is being adopted by any of the other countries which are developing purse seine operations?

Mr. Felando. No. I just know that anyone who is in the business and who wants to stay in the business will pick up these things quickly. The word is getting around.

A lot of the people that we compete with, you know we have communication with them out at sea and I can only say at this time that I believe they will get the word very quickly.

Mr. Potter. Is it your impression that the fishermen of other countries are as solicitious of the welfare of the porpoise and dolphin as you are?

Mr. Felando. Well, I think they want to catch fish and I would hope that they would recognize the advantages of making the change.

As to whether they have the same attitude that we have, I think all fishermen recognize the importance of porpoise so I would have to say I believe so.

Mr. POTTER. Or at least hope so.

Mr. FELANDO. I would hope so.

Mr. POTTER. That is all.

Mr. DINGELL. Mr. Anderson?

Mr. ANDERSON. Thank you, Mr. Chairman.

Mr. Felando, is the Medina net the type which has a 2-inch netting rather than the 4-inch netting that normally is used?

Mr. FELANDO. That is correct.

Mr. ANDERSON. I have been somewhat shocked by the number of porpoises that are reportedly killed each year as a result of being caught in the nets.

We have heard figures estimating 200,000 killed annually. And although they estimate how many are killed, no one seems to be able to tell us how many dolphin or porpoise there are.

How many porpoise would you estimate there are? Are we talking in terms of millions?

Mr. FELANDO. I would like to have Joe Medina talk about this. This is a very difficult thing. I wish we had more data to answer.

In fact, I think only six sets of data, six cruises are the basis for this estimate.

I would like to have Joe speak what he sees out there at sea.

Mr. MEDINA. I might say I think those figures are awfully high, but I might say from my experience and I have been going to sea since I was 7 years old, I would say we see as much porpoise today as we have ever seen.

There are also quite a bit of fish caught outside the porpoise. The only area from the Equator to up like Peru and Ecuador, is strictly what we call a school fishing area.

We have no problems down there except we get chased once in a while by a few gunboats.

I might add it is an area off of Costa Rica that they have a nickname for the porpoise there. We are kind of happy they do not migrate them any place else. We call them the untouchables. We cannot catch them. We have been trying for 10 years and they have outsmarted us every time. There were four of us and we followed the porpoise and made a set with 16 speedboats. We were nominated to try with our boat.

Well, we got around them all right and made a real nice set, started purse seining and they started leaking out the net and taking the fish with them and we ended up with no porpoise or no fish. Once they get outside, they are still looking at you. There are areas where we cannot catch the porpoise and other areas where we catch them very easily.

Well, to answer your question, we still see as much porpoise as we ever did. We have this problem licked with this net of mine. I wish it could be a year later so we could have a little more data for you.

Within a year, everybody will have this net.

Mr. ANDERSON. I would like to explore this estimate of 200,000 porpoises killed a year. Now I understand that this is not a count. It is just an estimate that was made, using a prorated share of the catch of tuna on so many ships. They give us the figure of 3.9 porpoise for every ton of tuna. And that is where they got the 200,000 figure.

How did they actually determine that there were 3.9 porpoise killed per ton of tuna?

Am I right in the way this figure has been developed?

Mr. Felando. Yes; from what I understand. We have allowed Government observers to go aboard our vessels and to take a count.

However, for instance there was only one observation on one vessel in 1968, one observation on one vessel in 1969, and I think four observations in 1971, so they have a limited sample. On the basis of that count and what they tried to figure out was what percentage of tuna was caught with porpoise and then on the basis of that, they would multiply what they estimated to be the number of porpoise killed per set or per ton with what they figured the fishermen would catch over a year on porpoise schools.

We have not done anything like that. We have not come up with the different system or different count, so it is hard to say.

The only thing that we can say is that we know it is so much variation, so many different circumstances and each set is a different experience, that we really question how good these figures are.

That is all I can say to this, Congressman. I wish we could come up with an estimate. We have not done it.

However, we are going to work out the program with the Government and we hope to get better figures.

This is a question of time and maybe we can zero in on the thing.

Mr. Anderson. When most of us think of the porpoise, we think of the ones we see on the TV, and they are fairly large.

When we are talking about 200,000 or 250,000 porpoise being caught in these nets, and they tell us they get caught by the nose in the 4-inch net, how big are these porpoise? Are they big or are they small ones?

Mr. Medina. These are large porpoise. We catch a spinner porpoise and the spotter porpoise. Sometimes we see small ones mixed in, but very seldom and I would say they are 5 to 6 feet long.

Mr. Anderson. These are trapped because they get caught in the 4-inch net?

Mr. Medina. Yes. When we back down, this is the first thing that really saves the porpoise, when we back down we may have 1,500 or 2,000 porpoise. This is a large school. Sometimes we may make a set on 40 or 50 porpoise and have no trouble getting them out.

When we back down out of that 1,500 porpoise, maybe 40 or 50 will get tangled in the net. The rest of them slide out over the top of the net and get out alive.

This is the problem we have with the 40 or 50 porpoise and we get in and save them, the ones that are tangled up.

With this new webbing and smaller net, and we are not having the problem, these porpoises are sliding right out of the net and getting out alive.

Mr. Felando. Mr. Anderson, I might say this section of the net is around 700 feet long and 40 feet deep. This is the small mesh. This appears to be like a sliding platform. They do not get their noses caught. They have very sharp teeth and they do not get caught any more and do not panic.

Like I say, the pictures will speak a 1,000 words and I am hopeful when we have the film that this might answer a lot of the questions that you have in your mind.

But to answer specifically your question, it appears we are talking about these mostly larger porpoise, 5 to 6 feet.

Mr. ANDERSON. Now, there are several ocean mammal protection bills before this committee. Several of the bills would place a definite fine of $5,000, or a 1-year imprisonment for anyone killing or harrassing certain ocean mammals.

What would that type of bill with such a penalty provision in it, do to the tuna fishing industry?

Would you be able to purse seine at all?

Mr. FELANDO. No, it would be almost fatal to the U.S. fishing fleet and I just do not see how we would be able to operate under the conservation program that we have now.

I might bring out another fact that I question about this number figure. We have been under Federal regulation as to the production of tuna in the eastern tropical Pacific since 1966.

As you know, an international commmission composed of six countries have been in existence since 1950 covering the conservation of the tuna as in the eastern Pacific.

We have an open season and a closed season.

The regulatory area which encompasses about 3 million square miles, the area we are talking about north of the Equator, up to about 20 degrees north latitude and out to about 122 or 110 longitude in some areas, this area is substantially closed during the closed season so there is a reduction of fishing effort for about 7 months in this area.

This is one reason why I really question the figure that they have raised.

Really, there is only a season for the yellowfin tuna which is primarily associated with the porpoise for about 4½ months.

What happens is that the fleet then adjusts to the conservation regulations just like we have now.

We have about 21 vessels in the Atlantic, another 20 or so vessels outside the regulatory area and the balance of the fleet are more or less located in fishing areas where tuna schools are not associated with the porpoise.

This is one reason I question the figures brought out.

We feel there is already some de facto regulation, you know, over and above what we are doing with regard to escape mechanisms so there is a real question whether there is a substantial impact on the porpoise population as has been raised publicly.

Mr. ANDERSON. Thank you, Mr. Chairman.

Mr. DINGELL. The committee thanks you for your presence and your very helpful information.

Our next witness is Mr. Eugene Dreisen, American Fur Merchants Association.

Mr. Dreisen, we are happy to welcome you back to the committee for such statement as you choose to give.

I notice you have with you some of your associates and counsel and if you will see to it that you are fully identified for purposes of the record, and also that the gentlemen with you are identified by name, you may proceed.

STATEMENT OF MR. JOSEPH POSER, FUR CONSERVATION INSTITUTE, ACCOMPANIED BY MR. EUGENE DREISIN, AMERICAN FUR MERCHANTS ASSOCIATION; MR. JAMES SHARP, ESQ., WASHINGTON, D.C., REPRESENTING THE FUR CONSERVATION INSTITUTE OF AMERICA; MR. FRED HESSEL, AMERICAN FUR MERCHANTS ASSOCIATION; MR. WALTER SCHWARTZ, MEMBER OF THE FUR CONSERVATION INSTITUTE; AND MR. IRVING HECHT, EXECUTIVE VICE PRESIDENT, ASSOCIATE FUR MANUFACTURERS ASSOCIATION

Mr. Sharp. Before Mr. Poser begins, Mr. Chairman, I am James R. Sharp, an attorney in Washington, D.C., and I represent the Fur Conservation Institute of America which represents all segments of the U.S. fur industry.

In order that you may know who is here from the institute, I will introduce them. We have only two witnesses and I have a memorandum which I will offer. On my left is Mr. Joseph Poser, who is the president of the American Fur Brokers Association and a vice president of the American Fur Merchants Association.

Beyond him is Mr. Eugene Dreisen, president of the American Fur Association and also the U.S. delegate to the International Fur Trade Federation in London.

To my right is Mr. Hans Hessel, vice president of the American Fur Merchants Association and chairman of its foreign trade committee.

Next to Mr. Hessel is Mr. Walter Schwartz who is a member of the Fur Conservation Institute and a member of the American Fur Merchants Association and next to him is Mr. Irving Hecht who is the executive vice president of the Associated Fur Manufacturers Association.

With that introduction, I should like to turn the mike over to Mr. Poser.

Mr. Poser. Mr. Chairman and members of the committee, I am Joseph E. Poser, a New York fur merchant, president of the American Fur Brokers Association and a vice president of the American Fur Merchants Association. However, I speak here on behalf of the Fur Conservation Institute of America, a body representing all segments of the fur industry in the United States.

Contrary to impressions the members of this committee may well have gathered from the highly emotional and either purposely warped or sadly misinformed presentation of proponents of the Harris-Pryor Ocean Mammal Protection Act, the U.S. fur industry is devoted to the concept of conservation of fur-bearing animals.

Since primitive times when furs served as shelter to man from the elements, fur trading has had an honorable history in this country and around the world. For centuries no thought had to be given to the question of continuity of supply. Vast lands existed, unoccupied by man, where fur-bearing animals lived in abundant numbers, and the early traders took what they wanted without endangering any species.

In those years the necessity of conservation did not guide actions of the fur industry or of Government officials or of the general public. Early in the 20th century the necessity of conservation of our wild mammal resources first became evident when it was found that the

North American fur seal population had been reduced to a dangerous level. In 1911, with the support of the fur industries in the four countries harvesting Northern Pacific fur seals, the United States, Canada, Russia, and Japan, signed a Northern Pacific Seal Convention. This was one of the first and a prime example of a plan for the rational use of a natural resource. This convention, may I point out, was adopted long before its present opponents had any thought of the necessity for wildlife conservation. It was highly successful and in 1957 a temporary convention for the conservation of seals was again agreed to by the four countries, as before, with the warm support of the fur industries of those countries. It is this latter convention which expires in 1976.

Everyone concerned with these hearings knows that the population explosion of people has resulted in the impairment of the natural habitat of wild animals. We in the fur industry learned that man's need of living space, space in which to produce his needs and to enjoy his recreational activities, has grown beyond the wildest predictions of the past. The fur industry has come to realize that it has become both necessary and desirable to scientifically manage wild animal stocks if these resources are to be preserved and conserved to serve man's present and future needs and pleasures.

We in the fur industry have learned that the development and worldwide use of pesticides has added an unanticipated danger to the continued existence of wild animals. Our industry recognizes that pollution of our streams, our land and our atmosphere has threatened not only the lives and livelihood of the people who occupy our ever more crowded earth, but, as well, threatened the lives of many wild animals which historically have provided man with great recreational, educational and economic resources. For all these reasons we realize that conservation measures are urgently needed and that only if such measures are reduced to statutes and international conventions can they effectuate the required conservation.

We in the fur industry have thus enlarged the recognition expressed years ago in our support of the international seal conventions. We recognize that the continued existence of the fur industry depends upon the enforcement of conservation measures on a worldwide scale, and that they must relate to all wild animals historically used by man for food, clothing, adornment or shelter. For these reasons the fur industry welcomes and supports sound Federal laws, strengthened by international agreements, designed to conserve wild animals.

Accordingly, we urge this committee to report out a carefully considered sea mammal protection bill.

In May 1969, in testimony in support of the Endangered Species Act, our spokesman testified before the Subcommittee on Energy, Natural Resources and the Environment, of the Senate Commerce Committee:

"We are opposed to the overutilization of any species of wildlife that threatens that specie with extinction."

Following the passage of that bill, the International Fur Trade Federation representing over 20 countries negotiated an agreement of aims and practices with the International Union for Conservation of Nature and Natural Resources and the World Wildlife Fund. The outline of said agreement is contained in a booklet which I would like to have introduced into the record.

Mr. DINGELL. Without objection, the booklet you refer to will be inserted in the record at this point.

(Booklet referred to follows:)

CONSERVATION AND THE FUR TRADE—PUBLISHED BY THE INTERNATIONAL FUR TRADE FEDERATION

FOREWORD

The International Union for Conservation of Nature and Natural Resources and the World Wildlife Fund welcome and endorse the action outlined in this paper, action which is based on knowledge accumulated over many years by the IUCN and which will lead to important management and conservation practices in the use of pelts from wild animals and in particular from depleted species.

FRITZ VOLLMAR,
Secretary General
World Wildlife Fund.
GERARDO BUDOWSKI,
Director General International Union for Conservation of Nature and Natural Resources.

CONSERVATION AND THE FUR TRADE

For a long time the Fur Trade has been deeply interested in the question of the conservation of fur bearing animals, for it is obviously not in the economic interest of the industry to see any species of wild life become extinct. In 1968 the International Fur Trade Federation (which is a federation of the national Fur Trade Associations of twenty three countries) appointed a Committee to investigate the position.

In the words of H.R.H. Prince Philip, Duke of Edinburgh:

> "Conservation is an immensely complicated problem and people who leap to the apparent obvious conclusion that it means complete protection of all wild things are guilty of gross over-simplification. They have merely allowed their emotions to overrun their reason."

The two primary causes of decline in wild animal populations are modification of habitat and overexploitation by man. Modification of habitat is caused by the conservation of land where a species has lived, by deforestation, drainage etc., to agricultural or industrial uses. Often this is linked with the effects of population growth, the building of new towns and roads, railways and airfields; with burning, overgrazing by domestic stock and a host of other practices. It may also involve a change in the animal population; for instance a reduction in prey animals which would adversely affect their predators. Exploitation is as likely to be for food or casual sport as for such economic utilisation as trapping for furs; provided the harvest does not exceed the populations' recruitment, a sustained yield of animals can be taken in perpetuity.

Rigid protection of a particular animal can sometimes be dangerous to its own survival if attention is not given to its food supply and habitat requirements. Thus the Moose on Isle Royal in Lake Superior, under complete protection, increased to a level at which they virtually destroyed their habitat. When Wolves were introduced to the island to prey upon the Moose a reasonable balance between population and food supply was restored.

It is right that restrictions should take place on the hunting of Tigers and Leopards, but except in the areas set aside as game reserves or national parks or other wild areas it is doubtful if any large increase in population can be allowed to occur, for under such circumstances the authorities in the areas in which they exist will be faced with the potential danger to humans and domestic animals. In areas where man has settled, habitat changes resulting from human activity, allow Leopards and Tigers little alternative but to prey on the increasing herds of domestic livestock. Farmers whose whole income is a few pounds a year derived from cattle and goats will naturally wage war on these predators. In this connection it must also be remembered that, in the past, instances were recorded of Tigers and Leopards being responsible for the death of many human beings. On the other hand, there are many well attested instances of populations of grazing animals, such as Deer, where hunting has been abolished and predators have been killed off, increasing beyond the capacity of the habitat to support them, resulting in the destruction of the habitat by overgrazing and starvation of the animals.

If herds of Seals are left undisturbed they can under certain circumstances compete with man's fishery operations. In Greenland and Arctic Canada, where the adult Seals used by the fur trade for coats originate, the sealing that has been carried on by the Eskimos for thousands of years is vital to their economy and their very existence. (In the Gulf of St. Lawrence where some individuals have been responsible for intense anti-Fur Trade propaganda, the vast majority of Seals taken are used for leather purposes and not by the Fur Trade at all). In any case, the part of the sealing operation that lies within Canadian territorial waters is controlled by the Government with a quota fixed on the advice of competent scientists, so that the herds are not unduly depleted.

On the island of North Rona off the Scottish coast, there is concentrated the largest population of Grey Seals in the world. A survey made by the Nature Conservancy has shown that as a result of overcrowding leading to disease, starvation and fatal injuries, of two thousand pups born each season from three to four hundred never live to reach the sea. It is arguable that it is better to kill some excess Seals quickly and humanely and thus allow the pups a better chance of survival. It is not true that if we just leave the Seals alone nature will see that they live happily ever after; on the contrary, if we abandon our management responsibilities, natural balances will be attained in ways that may be far more painful to individual animals.

Many people still find it difficult to understand that with man's dominance on earth the protection of Nature with its delicately balanced ecosystems, and all endangered forms of life, depends increasingly upon planned management of the wilderness and on enlightened exploitation of its natural resources based on scientific research, and that the roles of the hunter and the conservationist are usually compatible.

In Alaska the Fur Trade long ago took the lead in an outstanding conservation project. In 1911 the Fur Seal herd had declined to a maximum of 150,000 to 200,000 animals and was almost extinct in other areas. In that year a treaty was signed by all the Governments concerned and the management of the herd was taken over by the Fish and Wildlife Service of the United States Government in the interests of the Fur Trade. Selective killing was under the strictest supervision to ensure that humane methods were used to confine the killing to surplus three year old males, which meant that no female or breeding bull was ever intentionally killed. The killing of these bachelor Seals does not affect the structure or breeding performance of the herd, because the animals are polygamous. As the result of this scientific management the numbers of animals have increased to one and a half million and each year approximately seventy thousand skins are taken for the Fur Trade. The operations provide valuable employment to the native Aleut population who live in the islands. The Fur Seal has been reestablished and is now returning to other areas, and a sustained yield of surplus animals for use in the Fur Trade now gives economic benefits to many people.

ORYX, the journal of the Fauna Preservation Society, has said:

> "The Pribilof Fur Seals are in fact the perfect example of what conservation means by harvesting wild animal population on a sustained yield basis."

The International Union for Conservation of Nature and Natural Resources considers that conservation can best be defined as:

> "The rational management of earth's resources to achieve the highest sustainable quality of living for mankind."

In Canada there are great conservation projects covering effective wildlife management with carefully planned profitable culling covering Beaver and Musquash. Areas of hundreds of square miles are set aside as Reserves. Work is done to control water resources and increase food, and the harvesting of a scientifically assessed number of animals by the native population is allowed. Reserves are closed from time to time and fresh areas opened for trapping. In the U.S.S.R. the same approach is being made with the Sable and other animals.

In many producing countries the problem is being tackled by the establishment of conservation areas and reserves, where animals can be managed scientifically, and by restrictions on the export of certain skins. Unfortunately, the possibilities of evasion are great and it is often difficult to make such controls really effective. Under these circumstances, the members of the Fur Trade are in a unique position, in respect of fur bearing species, to aid the international effort in the control of trade in threatened species, through the acceptance of self-imposed bans on the use of skins of these animals.

With this objective in mind contact was made with the International Union for Conservation of Nature and Natural Resources (IUCN) which is the authoritative international conservation organisation and of which the World Wildlife Fund is the fundraising associate. Joint meetings were arranged in 1969 by the International Fur Trade Federation (IFTF) which were attended by representatives of the Fur Trade and the IUCN, including such well known conservationists as:

Lt. Cdr. Peter Scott (Chairman of IUCN Survival Service Commission);

Mr. Richard Fitter (Hon. Secretary of the Fauna Preservation Society);

Prof. Paul Leyhausen (Chairman of the IUCN Survival Service Commission Cat Group); and

Mr. Harry Goodwin (Chief of the Endangered Species Office, U.S. Department of the Interior).

These meetings confirmed that there was a great deal of common ground between the two sides in as much as the Fur Trade was genuinely anxious to prevent the extinction of the threatened species of animals by all means in their power, and that the IUCN recognised the legitimate interests of the Trade which could often contribute to the necessary culling and balance of wildlife and to the rational utilization of a renewable resource.

As a result of the discussions during the meetings, it was agreed that the IFTF would recommend strongly to their members a voluntary total ban on trade in the skins of five seriously endangered animals as follows:

Tiger (Panthera tigris); Snow Leopard (Panthera uncia); Clouded Leopard (Neofelis nebulosa); La Plata Otter (Lutra platensis); and Giant Otter (Pteronura brasiliensis)

Since there is now a good deal of evidence that Leopards and Cheetahs, although not immediately endangered, are being overkilled in some areas it was agreed that a temporary ban or moratorium should be recommended for three years, to enable a scientific survey to be made to determine the true position of these animals and the sustainable yield. These measures would operate from a date which would allow the Trade to clear existing stock as legitimate sales.

In Great Britain, the British Fur Trade Association has proposed to the Government that they should remove the skins of the seven species mentioned above from the open general license to import raw skins which operates at present, so that they will only be allowed into the country under a specific import license if accompanied by a certificate of legal capture from the originating country authenticated by the United Kingdom Consul.

The Swiss, German and French Associations have approached their Governments on similar lines to the British Fur Trade. Among South American Spotted Cats, such as Jaguars, Ocelots, Peludas and other types of Spotted Cats presently under pressure from exploitation, there was not sufficient information to indicate that the species were endangered, and it was necessary that an enquiry should take place as soon as possible into the position of these animals, so that action could be taken in good time to prevent the depletion of stocks.

These enquiries on Leopards and Cheetahs and South American Cats would be carried out jointly by IUCN and IFTF who would maintain a close watch on the number of skins coming on to the market and make a substantial financial contribution to the costs of such surveys.

It was also agreed that the IFTF would recommend to their member associations that they should support all conservation legislation in their respective countries on the same lines as the United States Endangered Species Act which, with the help of the American Fur Merchants Association, became effective in the U.S.A. in August 1970.

The Director General of IUCN has said:

> "This agreement with the IFTF whose members include Fur Trade Associations throughout the world, represents an important forward step toward the rational management of these living resources. The action of the IFTF will be a significant and lasting contribution to the preservation of the life forms which are in danger of extinction."

And Mr. Walter Hickel, when United States Secretary of the Interior, in a personal letter has said:

> "The United States Department of the Interior sends its congratulations to the International Fur Trade Federation for its efforts to save endangered species and prevent other species from becoming threatened with extinction. The efforts of all international organisations concerned with conservation and rational use of the living resources of the world must be joined to preserve these life forms for future generations."

Retail fur stores throughout the world who subscribe to these agreements will display a plaque which certifies that they support the principles of conservation and adhere strictly to the guidance provided by the World Wildlife Fund on the advice of IUCN and in cooperation with the IFTF. The proceeds from the sale of these plaques will be used to finance research projects leading to conservation action.

It will be seen, therefore, that the Fur Trade is deeply concerned in this question and is working in the closest cooperation with the most responsible organisations in the world, to ensure that there is effective wildlife management, and that the taking of skins for furs is based on planned scientific methods to ensure maintenance of stocks.

Mr. POSER. Our attitude concerning the conservation of sea mammals is identical with that of the true conservationists and the concerned public authorities. However, it departs from that of the so-called humane legislation groups such as the Friends of Animals, Inc., and similar organizations. These organizations can be more aptly described as preservationists rather than conservationists. Their philosophy seems to be that no living animal should be used by man unless absolutely necessary to serve man's need for food, clothing, or shelter. The dispatch of animals not absolutely necessary for food, clothing, or shelter, even though done by the most humane method possible, is not regarded by them as humane. Yet they label the dispatch of cattle and other animals they say are necessary for man's livelihood as humane, even though such animals may be dispatched by the same means as surplus bachelor seals.

In respect to conservation, we are in good company. Our philosophy matches that of the International Union for the Conservation of Nature (IUCN), the Wildlife Management Institute, the American Forestry Institute, the World Wildlife Fund, the Audubon Society, the American Mammalogical Society, the Departments of Commerce, State, and Interior, and the Council on Environmental Quality. We believe the controlled or "managed" use of the world's mineral, plant, and animal resources is necessary to the continued life, protection, education, and welfare of man. We believe such use is also necessary to prevent the population of some species from increasing to the extent they endanger themselves or other species. We believe that if an ample quantity of mineral, plant, or animal resource can be generated by scientific management, there is nothing wrong or inhumane in its limited use by man. We believe that if a resource is threatened from whatever source, its use must be controlled by laws and international conventions; that is, managed in the interests of both man and nature.

At this point, I offer for the record a news item clipped from the New York Times, August 22, 1971, issue, relating to the overpopulation of the gray seals in the Farne Islands off the northern coast of England and the consequent necessity of dispatching nearly half the herd to save the balance. I would like to read some excerpts from this article, which show that nature itself doesn't always do a very good job of management and that man can make a solid management contribution.

Mr. DINGELL. The Chair indicates there is no objection to insertion of these, if they have not already been inserted.

(The document referred to follow:)

[Clipping from the New York Times, Aug. 22, 1971]

BRITAIN PLANS TO KILL 3,000 SEALS ON FARNE ISLES

(Special to the New York Times)

London, Aug. 22.—Three thousand gray seals on the Farne Islands, off the northeastern coast of England, will be killed over the next three years because of overpopulation.

The culling of the seals, which now number about 7,000, will be carried out by the Ministry of Fisheries beginning next year. Killings will be carried out at close range by pistol shots through the head. The action is approved by the National Trust and other groups devoted to preserving wildlife.

According to Nigel Bonner of the seals research unit of the National Environment Research Council, 21 percent of last year's seal calves born on the Islands died, mainly because they lost contact with their mothers and starved to death. The calves were unable to obtain milk, their only food for the first weeks of life.

"The general picture now presented by the breeding grounds on the Farne Islands at the height of the season is one of squalor," said Mr. Bonner. "The carcasses of dead calves lie scattered on the mud and starving calves, many of them covered with purulent wounds inflicted by aggressive cows, lie moribund or sucking weakly at each other."

In 1956 about 750 seals were born on the Islands, which have a total land area of 80 acres. The number of births has increased in succeeding years, and last year, 1,956 seals were born. Mr. Bonner said there was "no evidence" that the number would stabilize if nature were allowed to take its course.

[London "Daily Mail" May 26, 1971]

Bid to Save Seals By Slaughter

(By Harvey Elliott, Environment Reporter)

A population explosion on an island owned by the National Trust could mean death for thousands of seals.

So many have been born on Farne Island in the past ten years that the adults are now fighting each other for the space left available.

And the death rate is rising rapidly among calves.

Now the seal research unit of the Natural Environment Research Council is recommending to the National Trust that they kill sufficient seals to ensure a healthy breeding stock of acceptable size.

The report will split the trust. When it bought Farne Island, off Northumberland, in 1925, it was designated as a bird sanctuary and seal population was only a few hundred.

But they multiplied rapidly under the protection of the trust and by 1960 were becoming a menace to fishermen.

In 1963 it was decided to kill 1,500 of the seals. But the cull was stopped after 350 had been killed because of the public outcry.

In 1960 there were 3,500 seals on the island. Today there are 7,000.

According to the report many rare birds are being driven from the island. Soil is being eroded and there is a disturbing development of aggressive behaviour in the adult seals.

Mr. **Poser**. Having placed on the record our industry's strong support for conservation in both principle and in practice, I would like to briefly comment on the various bills which have been referred to the committee and with which these hearings are concerned. I would first like to make it clear that of the sea mammals covered by the bills being considered by the committee, the fur industry's interest lies almost exclusively in the northern Pacific fur seals.

We oppose H.R. 7555, the Ocean Mammal Protection Act of 1971, Congressman Pryor's September 9 version of that act (H.R. 10569) and all like proposals which would ban the harvest of ocean mammals even when in oversupply or when at a level permitting a sustained yield without diminishing the population stock. Such bills would unnecessarily deny to man the use of an abundance or overabundance of a natural animal resource. Furthermore, such bills would allow the present Northern Pacific Seal Convention to expire. It would thus open the door to pelagic killing of northern Pacific fur seals, an activity which would not only endanger but soon make extinct the population of this specie which sound management over the past 60 years has built to an optimum level permitting a sustained annual yield.

We strongly favor H.R. 10420. It is an enlightened proposal the provisions of which spring from an application of commonsense rather than emotion. Like many other legislative proposals, however, the bill could stand improvement. We understand that the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce has submitted proposals for amendment of H.R. 10420 to make it more workable. As we have had no opportunity to review those proposals we can make no comment on them here.

However, we have some positive proposals of our own to submit for improvement of that bill. Our Washington counsel, James R. Sharp, has prepared a memorandum of suggested changes in H.R. 10420 for consideration of the committee and its staff. The major change we are proposing is that a section be added requiring that the Department of State negotiate a permanent extension of the Northern Pacific Seal Convention which expires in 1976. We also urge that the committee incorporate other changes to assure that the power of the Secretary to set limits on the taking of ocean mammals shall, under no circumstances, be exercised in derogation of the rights of other nations as they may be established in the present and any extended or new convention relating to the management of fur seal or other sea mammals.

Your hearing schedule is crowded so I will take no more of your time. The matter before you must be decided shortly and after calm and deliberate consideration. We will leave no stone unturned to aid you in obtaining the passage of legislation designed to conserve and increase the available supply of wild ocean mammals in order, as provided by H.R. 10420, that the supply "can maintain that equilibrium at which they may be managed on an optimum sustained yield basis." It is that type of legislation which we trust will be reported out by the Merchant Marine and Fisheries Committee of the House upon the recommendation of this subcommittee.

In order that the position of the U.S.S.R. organization which handles its seal exports may be of record in these hearings, I request that Mr. Eugene Dreisin be allowed a few minutes for that purpose.

Mr. Dingell. Mr. Dreisin, the committee will be happy to hear from you.

Mr. Dreisin. I am Eugene Dreisin, president of British-American Brokers, Inc., former president of the American Fur Merchants Association, and American delegate to the International Fur Trade Federation in London.

Technical, humanitarian and economic questions have been covered at some length by other witnesses. I will address myself to the international aspects of the problem being studied by the committee as it related to Northern Pacific fur seals.

Fur seal harvests in the North Pacific involve only four nations. The two governments which carry the main responsibility are the United States and the Soviet Union.

On Monday of this week the committee heard witnesses from three departments and one agency of our own Government. These spokesmen were unanimous in opposing the Pryor Ocean Mammal Protection Act type of bill and unanimous in supporting H.R. 10420 and a continuation and extension of the Northern Pacific Seal Convention.

Statements recently appeared in a Baltimore, Md., newspaper implying that the Soviet Union is in some way disillusioned with the Northern Pacific Seal Convention and is prepared to cancel it. When this was called to my attention, I wrote to the organization that handles all seal exports from the Soviet Union and inquired as to the position of that organization (the Soviet Export-Import Trading Co., V/O Sojuzpushnina, Moscow) on the matter of the convention. I have with me a statement on the subject, which has been mailed to me in reply to my inquiry.

In order that the attitude of the Soviets in relation to the convention may be of record here, I respectfully request that the original and the translation of the communication I received be made part of the record.

Mr. DINGELL. Without objection, so ordered.

Mr. DREISIN. I will read for the benefit of the committee members the certified English translation so that the members may know that this Soviet organization is as anxious as we are about the continuation and extension of the convention and that it is as proud as the U.S. fur industry is of the success of the conservation program for which the 1911 and 1957 conventions were designed.

(Translation is as follows:)

THE HUNTING OF FUR SEALS[1]

The North Pacific fur seal is one of the sea animals valued for the beauty of its fur.

In the pursuit of profits during many decades of the late 19th and early 20th centuries, there was uncontrolled annihilation of these animals, including and by dint of the widespread growth of rapacious sea hunting. This brought about a radical decline in the seal population.

A seal convention was entered into in 1911. This convention was signed by the U.S.A., England, Russia and Japan. This convention was supposed to encourage a more rational use of seal resources, however, due to various reasons this convention, in subsequent years, lost its effectiveness.

In 1957, a temporary convention for the preservation of fur seals in the northern part of the Pacific was renegotiated between the U.S.S.R., U.S.A., Canada and Japan. The basis for the convention was the recognition of the principle of rational exploitation of the seal resources and the first action taken was the prohibition of the hunting on the high seas.

The adherence by all countries participating in the convention and the administration of the seal harvest on a scientific basis has reflected favorably in the seal resources whose quantities have grown considerably. This has facilitated a larger harvest which at the same time did not impede the constant growth of the herd.

A biological peculiarity of the fur seal is to be found in its polygamous way of life, under which condition the normal growth of the herd is predicated on a grown male needing 40 to 50 females. This situation permits a fully rational exploitation of the seal resources, removing only the young immature males, in the age bracket between 3 and 4 years, and leaving all females and baby seals for the further development of the herd.

The temporary convention for the preservation of fur seals can serve as a shining example of international cooperation for the rational exploitation of the living resources of the sea.

The Soviet Union will continue to adhere to its international obligations and will continue the seal harvest observing the provisions of the convention with a view to further increase the number of herds.

Mr. DREISIN. Thank you, Mr. Chairman.

Mr. DINGELL. Are there any questions?

Mr. SHARP. Mr. Chairman, may I say just a word before you start the questions?

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[1] Certified Translation of body of communication from Soviet Export-Import Trading Co., V/O Sojuzpushnina, Moscow, to Eugene Dreisin (Russian version attached). September 17, 1971.

We have been able to gather some statistics that may be of interest to the committee. For instance, I have a good deal about the number of females killed. We do have a report from NOAA that there were only 230 in 1969, 121 in 1970, and 84 in 1971.

Mr. DINGELL. Those figures, I believe, are already in the record.

Mr. SHARP. Now, Mr. Chairman, there are other statistics with respect to the processing and exportation of seal skins showing that the bulk of such skins that are processed in this country (the Canadian as well as the U.S. share and Japanese share) are exported. In any event if there are questions on the matter of statistics we will be happy to answer them.

(The statistics referred to follow:)

DATA PROVIDED BY FOUKE CO. OF GREENVILLE, S.C., RELATIVE TO SOURCES AND DESTINATION OF FUR SEAL SKINS SOLD AT FOUKE CO.'S AUCTIONS [1] [2]

Sales and source of skins	Total number of skins sold	Estimated number of skins exported	Estimated percent of skins exported	Estimated dollar value of skins exported	Estimated number of skins not exported	Estimated percent of skins not exported	Estimated dollar value of skins not exported
April 1968:							
Alaska	27, 301						
Other	22, 309						
Subtotal	49, 610	30, 367	61. 2	$2, 173, 039	19, 243	38. 8	$1, 707, 387
September 1968:							
Alaska	27, 730						
Other	25, 636						
Subtotal	53, 366	33, 158	62. 1	1, 917, 394	20, 208	37. 9	1, 549, 865
Total 1968	102, 976	63, 525	61. 7	4, 090, 432	39, 451	38. 3	3, 257, 252
April 1969:							
Alaska	26, 800						
Other	27, 142						
Subtotal	53, 942	33, 715	62. 5	1, 854, 931	20, 227	37. 5	1, 664, 862
October 1969:							
Alaska	26, 905						
Russia	2, 879						
Other	27, 045						
Subtotal	56, 829	35, 050	61. 7	1, 517, 030	21, 779	38. 3	864, 493
Total 1969	110, 771	68, 765	62. 1	3, 371, 961	42, 006	37. 9	2, 529. 355
April 1970:							
Alaska	26, 575						
Russia	5, 989						
Other	26, 103						
Subtotal	58, 667	38, 613	65. 8	2, 083, 730	20, 054	34. 2	1, 192, 575
November 1970:							
Alaska	19, 897						
Russia	2, 757						
Other	28, 462						
Subtotal	51, 116	44, 101	86. 3	2, 258, 975	7, 075	13. 7	436, 699
Total 1970	109, 783	82, 714	75. 3	4, 342, 708	27, 129	24. 7	1, 629. 274
April 1971:							
Alaska	20, 842						
Russia	2, 655						
Other	29, 047						
Total	52, 544	43, 866	83. 5	2, 277, 760	8, 678	16. 5	493, 238

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[1] Canadian skins are processed by Fouke Co. but shipped to Montreal and not sold in the United States and are therefore not included in the above figures.

[2] Other sources in all cases are Uruguay and South Africa. Uruguayan skins average approximately 1,400 semi-annually. The balance are all from South Africa.

EXPORT DATA SUPPLIED BY DEPARTMENT OF COMMERCE—TOTAL DRESSED SEAL FURSKIN EXPORTS, INCLUDING FUR SEAL, ROCK SEAL AND HAIR SEAL

Year	Number skins	Dollar value
1965	88,644	$6,055,144
1966	62,747	4,087,779
1967	84,562	5,442,157
1968	85,858	5,901,127
1969	75,011	3,926,145
1970	104,347	5,281,613
1971 through July	28,395	1,586,970

Mr. SHARP. Mr. Chairman, I also have some suggested changes in H.R. 10420 and with your permission, I will submit them to the reporter.

Mr. DINGELL. Without objection, they will appear in the record at this point.

(The suggested changes to H.R. 10420 follow:)

SUGGESTED CHANGES IN H.R. 10420 AS SUBMITTED BY THE FUR CONSERVATION INSTITUTE OF AMERICA

1. Provision Requiring Negotiation of a New or Extended Northern Pacific Seal Convention and International Conventions for Conservation of Other Ocean Mammals.

H.R. 10420 should be changed to the extent and in the respects necessary—

(a) To require that well in advance of the expiration date of the Northern Pacific Seal Convention in 1976, an extended (hopefully permanent) Convention be negotiated by the Secretary of State, consistent with the findings and declarations of policy set out in Section 2 of H.R. 10420, and with the advice and assistance of the Secretaries of Commerce and Interior.

(b) To require that within two years after adoption of the Act the Secretary of State convene a meeting or meetings of representatives of appropriate nations to consider conventions designed to conserve sea mammals other than fur seals.

(c) To provide that prior to termination of the present Northern Pacific Seal Convention and during the period of any new or extended Seal or other international convention relating to the Conservation of Ocean Mammals under the terms of which an International body sets annual or other limitations on the taking of the mammals involved, the Secretary shall have no power to set any limitation on the taking of such mammals which is in derogation of such Convention or of the limitations on taking established thereunder by the International body which is required by the Convention to establish limitations thereon.

2. Provisions to be Modified as a Result of Suggestion Number 1.

As a result of the incorporation of provisions such as suggested in 1 above, appropriate changes will have to be adopted in Sections 102, 103 and other sections. Perhaps Sec. 107 dealing with "Exceptions" could be modified to except from the provisions of the title all taking done pursuant to and in accordance with any international convention to which the United States is a party.

3. Changes to Assure that Limitations on Taking Which May be Prescribed by the Secretary are Consistent with the Act.

We suggested that in order to be doubly sure that the Secretary administering the Act does so in accordance with the statement of policies set forth in Section 2, there be inserted in line 21 of H.R. 10420 as introduced by the original sponsors, after the word "shall" and before the word "prescribe" the words "consistent with the findings and declaration of policies set out in Section 2."

4. Changes in the Penalty Section.

Section 104 which provides penalties for violation penalizes only violations of the Act or "any regulation issued thereunder." Like the penalty section of the Endangered Species Act (16 U.S.C.A. 668 cc-4), the section in the Ocean Mammals Act should provide penalties for violation of the Act or of "any regulation *or permit* issued thereunder."

Penalty Section 104 provides penalties for violation, among other things, of the prohibitions of Section 101. The latter section provides that except as provided in Section 102, 107 and 109 it is unlawful for any person or vessel subject to the jurisdiction of the United States to take an ocean mammal or use any port, harbor or place in connection with any such taking or to possess, transport, sell or offer for sale any such mammal in interstate commerce or to import any such mammal or part thereof.

Under Section 102 the prohibition would apply immediately after the Secretary had prescribed limitations on the taking of the species, there being no waiting time provided for between the effective date of the limitations prescribed by the Secretary under Section 102 and the application of the prohibitions under Section 101. This could operate quite unfairly as to anyone with a stock of skins on hand as of the date the Secretary prescribed the limitations. The same problem was considered during the course of the Senate Subcommittee hearings on the Endangered Species Act. Accordingly, Section 668 cc 3 (b) containing a licensing provision as to inventory on hand was adopted to eliminate any economic hardship which would otherwise result in a similar situation. A similar relief clause should be incorporated in H.R. 10420 or such other bill as the Committee may report out.

5. Revision of the Forfeiture Provisions.

The forfeiture provisions are set forth in Section 105 of H.R. 10420. There is considerable question as to whether the section as now written provides adequate protection to those whose property is seized. Lengthy consideration of the identical problem was given to the forfeiture provisions of the Endangered Species Act by the Senate Commerce Committee and its Subcommittee. We believe that Section 105 of H.R. 10420 should be modified to follow the pattern established by the forfeiture provisions of the Endangered Species Act. This pattern is set out in Section 668–cc–4(a)(2) of the Endangered Species Act (USCA 16 Par. 668–cc–4(a)(2).

6. Excessive Administrative Requirements.

As introduced, the Act would be administered largely by the Secretary of Interior. However, under Title II, Section 201, a Marine Mammal Commission would be appointed. Its duties would be (Sec. 202) to conduct studies and make recommendations to the Secretary. The Commission is to be aided in its work by a "Committee of Scientific Advisers on Marine Mammals." Under Sec. 203 "The Commission shall consult with the Committee on *all* studies and recommendations which it may propose to make or has made" and if the Committee "or any of its [nine] members" makes a recommendation not adopted by the Commission, the latter must nevertheless provide the appropriate Federal agency and the Congress with a written explanation of its reasons for refusing to adopt the Committee's recommendations.

In turn, if the Commission makes a recommendation to the Secretary or any other Federal official, the latter must respond to the recommendation within 90 days, and if the recommendation is not followed, the Secretary or other Federal official involved must make within the 90 days a "detailed explanation of the reasons why" the recommendation was not followed.

No competent federal agency should be required to consult with its advisory committee on its *every move or proposed move* and then to constantly justify its decisions, actions and judgment on the basis of a rejected suggestion *of a* manner which under no circumstances would authorize or permit actions or *single member of a nine member "advisory" committee.* We suggest simplification of this somewhat time consuming and cumbersome procedure but in a facts to be hidden from public view or the view of the Secretary or Congress.

Except for the above, the Fur Conservation Institute of America finds itself in full support of the provisions of H.R. 10420. It would, however, appreciate being given the opportunity by the Subcommittee staff of reviewing the marked up bill in order to permit the Institute's counsel to comment on any undue hardships which may result from the draft.

Respectfully submitted,

JAMES R. SHARP, COUNSEL.

Mr. DINGELL. We will be happy to receive such statement as you choose to give us with results of the ultimate disposition of the hides. That would be very useful to this committee.

Are there any questions?

Mr. Pelly?

Mr. PELLY I just wanted to ask if the organization that you represent deals with the pelts of the harp seals?

Mr. **Hessel**. There are practically no harp seals used in the United States. The main quantity of the sealskins in the United States used for manufacturing are the fur seals which refers to the Alaska fur seals.

Mr. **Pelly**. Would any legislation to ban the import of the harp seal do violence to your business?

Mr. **Hessel**. It would have practically no effect on the fur industry in the United States.

Mr. **Dingell**. Mr. Rogers?

Mr. **Rogers**. Mr. Chairman, I have no questions. I think that the information given us has been helpful and I am sure the committee will consider it.

Mr. **Dingell**. Very much so.

Mr. Kyros?

Mr. **Kyros**. Thank you, Mr. Chairman.

To what extent are the finished products, that is, the coats and suede leather from baby seals killed in Canada, imported and sold in the U.S. market?

Mr. **Hessel**. I repeat and give the same answer. Baby seals are not used in the United States whatsoever.

Mr. **Kyros**. I did not ask you that.

I asked you: what products from seals killed by the Canadians are sold in the United States. Sold, for example, as fur trim, suede, leather, and so forth.

Mr. **Hessel**. Are baby seal skins sold here? No. I do not think that anybody can make a statement of 100 percent, but I can assure you that there is no use of baby seals whatsoever in the fur manufacturing industry in the United States.

Mr. **Kyros**. There are no finished products coming in?

Mr. **Hessel**. No. There are no imports of the finished products.

(The following was submitted for the record.)

JAMES R. SHARP.

Washington, D.C., September 27, 1971.

FRANK POTTER, Esq.,
Counsel, Subcommittee on Fisheries and Wildlife Conservation.
U.S. House of Representatives,
Washington, D.C.

DEAR FRANK: You will recall there were some questions asked about the quantity of baby Canadian seal skins used by the U.S. fur industry.

I have made further inquiries since the testimony of the fur industry before the Committee on the 17th of September, and again, I am assured that no baby seals (white skins) are bought by the U.S. industry. In fact, the U.S. industry buys only a very small percentage of the total Canadian exports of seal skins. In 1970 there were 7,250 skins out of a total Canadian export of 193,701 skins exported to the United States. Canadian exports for that year were as follows:

1970 Exports from Canada of Raw Fur Seals

United States	7, 250
Puerto Rico	1, 290
Sweden	1, 012
United Kingdom	66, 890
Austria	102
West Germany	14,835
Belgium	34, 639
France	2, 047
Norway	65, 646
Total	193, 701

Thus, the United States imported 3.74 percent.

Obviously, the statistics do not show but, again, I am assured that of the 7,250 skins bought by U.S. buyers all were mature seals.

In 1969 the exports to the United States were only 1,053 skins from Canada.

Sincerely,

JAMES R. SHARP.

Mr. KYROS. What about pelts from baby seals killed off South Africa and imported into the United States in raw process form?

Mr. HESSEL. There are no baby seals in the South Africa importation. The South African seal harvest is controlled by the government in South Africa and by other shippers.

Mr. KYROS. Are they shipped to the United States?

Mr. HESSEL. Yes; fur seals are imported from South Africa.

Mr. KYROS. To what extent are these fur seals killed off South Africa and shipped here in finished or raw form?

Mr. HESSEL. The figures, for instance, in April 1971, the Fouke Fur Co. offered for sale 20,842 Alaskan seals against 29,047 South African seals. The latter were sold for account of the South African Government and partly for other shippers, but there were no baby seals. I wish to make this clear.

Mr. KYROS. I asked about fur seals and you have not answered the question yet.

Mr. SHARP. Perhaps he did not understand the question.

Mr. POSER. The seals which Mr. Hessel refers to are fur seals.

The statistics he gave you on South African seals are fur seals.

Mr. POTTER. Let me ask you a question.

Reviewing the Fouke documents, it is my impression that the pelts described in those documents as coming from South Africa, are usually described by Fouke as "small" and "extra small."

The pelts which are sold for the account of the United States, for the account of Japan and the U.S.S.R., are usually the "large" and "medium" sizes.

Does this not indicate that the seals that are being taken by the South Africans are in fact small and quite young?

Mr. SCHWARTZ. May I answer that? The climatic conditions of the Cape of Good Hope have caused these seals to be smaller.

The older South African seal and the largest such seal would not equate with the largest of those growing in the Pribilof Islands. They are not baby seals. They are just smaller by nature, not necessarily baby seals at all.

Mr. POTTTER. Do you know what the average age of those seals in South Africa is?

Mr. SCHWARTZ. Well, I do not have the statistics of the South African Government, but I am convinced they follow our policy of harvesting only 3- and 4-year-olds.

Mr. POTTER. If you can supply evidence to support that, it would be most helpful and I would ask permission of the chairman to insert that in the record at this point.

(The following letter and newspaper clipping was received in reference to the above:)

JAMES R. SHARP,
Washington, D.C., September 27, 1971.

FRANK POTTER, Esq.,
Counsel, Subcommittee on Fisheries and Wildlife Conservation,
U.S. House of Representatives, Washington, D.C.

DEAR FRANK: The Chairman asked that I advise the Committee, if possible, as to the average age of the South African seal skins processed in the United States. 90% of which Mr. Dreisin testified were exported from the United States to Europe as processed skins or in the form of garments.

In response to my inquiry, I have been advised by the South African Embassy as follows:

1. The South African seals (or Cape Seals as they are known in the trade) have been protected by South African conservation laws since 1891.

2. The total estimated population is now approximately one million. The rookeries occur on numerous rocky islands along the West Coast of South Africa, access to which is not only difficult but strictly controlled by the government.

3. The bulk of the kill is for the account of the government, not private sealers, and the permissible kill is set each year by the government. No baby seals or females are killed, all of the annual harvest being mature male seals of varying ages. The average age of the kill is eighteen months. Despite a sustained annual yield of around 40,000 to 50,000 (approximately the same as the Pribilof yield) the population is estimated to be increasing each year.

4. The objective of the South African government is to prevent overpopulation and resulting starvation of the young seals and the squalor and desecration of the areas in which the rookeries are located—in other words, to avoid the conditions which the British authorities are reported to have found with the seals in the Farne Islands as described in a recent article in the *New York Times*.

Sincerely,

JAMES R. SHARP,
Counsel, Fur Conservation Institute of America.

[The Houston Post, Aug. 1, 1971]

SEAL FACES DEATH—SEAL HUNT WILL KILL THOUSANDS

JOHANNESBURG—At least 80,000 baby seals will be killed in the annual hunt now underway off South Africa and South-West Africa.

As in Canada and Norway, where similar hunts are conducted, animal lovers deplore the operation. But fishermen say their livelihood is threatened unless the seal herds are controlled. Government experts assert "culling" is necessary to keep down the herds, estimated to total one million.

This year's South African operation is expected to net about $1.4 million in foreign exchange. The hunt takes places annually in the July-September period when the pups are about seven or eight months old and only partly weaned.

The pelt is in prime condition at this time. It may bring $14 on the United States, British or German fur market.

Government expert C. L. Bosman who reckons that 200,000 seal pups are born each season, says: "Thousands die before they reach maturity either by drowning, being taken by sharks or simply being unable to stand up to the conditions of nature."

Culling therefore accounts for only 40 per cent of the annual stock of pups, he estimates.

Private contractors do the killing under supervision of the government's Division of Guano Islands.

Sealers land on islands carrying strong wooden clubs. They walk among young seals perched on rocks and try to kill each with one hard blow to the head between eyes and nose. The seal is then stabbed with a stiletto.

An efficient team of sealers can kill 200 to 300 animals a day. They use razor-sharp knives to slit the animal's fronts and then peel off the pelts.

A layer of white blubber under the skin is removed and processed for use in stock feed and soap. The rest of the carcass goes into food for livestock or pets.

Mr. KYROS. Some people say if you impose an import ban on all of these seal products we have talked about, it would remove the economic incentive for killing such seals.

Do you agree with that?

Mr. POSER. No, we do not.

Mr. KYROS. Why?

Mr. SCHWARTZ. You were referring before to the harp seals of Canada.

I have not seen or heard in my 48 years in the fur industry, that harp seal is ever used for clothing or for leather or suede. The banning of imports of harp seals or any other species from Canada would not affect the fur industry at all.

Mr. KYROS. Recently, there was a half page ad by the Fouke Co. which appeared in the New York Times. The ad stated that an import ban would have little effect since most of the seal pelts are purchased and processed by European buyers. Is it not so, however, that a significant quantity of seal skin coats are imported to the United States?

Mr. SCHWARTZ. Not imported into the United States. Exported, yes.

Mr. DREISIN. According to the figures available to us, 82 percent of the whole seal production is exported.

The seals which come here from South Africa, they come here for processing and as far as I know, over 90 percent of the finished product is exported.

The main user of seals is today Europe.

Mr. KYROS. And sealskins do not go out of the United States and come back as a finished product?

Mr. DREISIN. Nothing is imported in a finished garment, not to my knowledge. Most is exported in finished skin form or in the finished garment.

Mr. KYROS. Is it a consideration that European women like seal coats and American women do not?

Mr. DREISIN. I must frankly tell you that America used to consume quite a bit of seals. However, lately we have been subjected to, I do not know what to call it, but to half truths and untruths in the newspapers.

We have been accused of being all kinds of things and this, of cousre, has made the wearing of a seal coat today synonymous practically to being a murderer. And this has, without any doubt, hurt our industry to a very great extent.

Mr. KYROS. Thank you, very much.

Thank you, Mr. Chairman.

Mr. DINGELL. Any further questions?

Gentlemen, the committee is grateful to you. It has been a pleasure to have you here.

You have given us helpful information. Insertions will be made of the matters you requested to be inserted in the reccord and if you have any other additional information you are asked to furnish it to us as promptly as possible. We thank you.

Our next witness is Mr. Richard Denney, wildlife field consultant, the American Humane Association.

Mr. Denney, if yo uwill identify yourself fully for the purpose of the record, we will be most happy to hear you.

STATEMENT OF RICHARD N. DENNEY, WILDLIFE FIELD CONSULTANT, THE AMERICAN HUMANE ASSOCIATION

Mr. DENNEY. My name is Richard Denney, a wildlife field consultant for the American Humane Association.

I have been working the professional wildlife field for 22 years, 18 of which have been in the United States and 4 years have been with the Food and Agriculture Organization of the United Nations in East Africa.

The press of the rapidly expanding human population throughout the world has increased the demand and exploitation of the earth's natural resources, both terrestrial and marine, that were previously considered to be inexhaustible or little affected by man's actions. This expansion of man's impact on the environment has resulted in encroachment of habitats, and the resultant effect on indigenous wildlife species, that were previously of lesser concern to humanitarians, but which have now moved into the province of humane interests. An underlying principle of humane work is animal welfare, which not only includes the obvious prevention of overt cruelty by intent, but also animal suffering which may result from the acts of man, or lack of action, stemming from ignorance, negligence or apathy. Man's trail through the history of the world is littered with the consequences of the lack of proper management—the many wild species that have been extirpated.

Current interest is centered on marine mammals, and it is imperative that the ocean animals not only be protected, but properly managed based on sound biological and natural resource principles. There are those among the American public who are less informed and more emotional who advocate total protection only, and would allow nature to take its course. This is not a realistic approach, as man's alteration of the various ecosystems already makes it imperative that his continued influence be manifested through management to insure the survival of designated species.

Any marine mammal legislation which proposes protection only without management is categorically untenable. A case in point is the northern fur seal, *Callorhinus ursinus*, of the northern Pacific Ocean and the Bering Sea, which has been the subject of intensive research and management since the inception of the North Pacific Fur Seal Convention in 1911 between the United States, Great Britain (for Canada), Russia, and Japan. The success of this program through international cooperation and rational management is demonstrated through the increase from around 200,000 seals in 1912 to approximately 1½ million during the past 60 years.

The terrestrial habitat requirements of the fur seal in the limited and physical characteristics of the land area necessary for reproduction dictate that population control be an integral component of their management. Because of life history traits involving social structuring and polygamy, those animals surplus to continued breeding requirements can be effectively harvested without disturbance to the breeding population or detriment to sustaining an optimum and vigorous total population.

Several TV programs and articles in the written media have focused public attention on the northern fur seal harvest within the past year.

Much of the information disseminated by mass media has been so general, incomplete or slanted that many individuals have been critical of the management of the northern fur seal in the Pribilofs. Certain aspects of the Canadian seal harvest involving the harp seal pup clubbing have been exploited by certain organizations, either ignorantly or purposely deluding the public into believing that this is representative of American sealing on the Pribilofs. In addition, these organizations charge that the manner of cropping fur seals is cruel and inhumane, and that the harvest is initiated by the dollar in catering to milady's vanity and attending graft of bureaucrats and private enterprise.

Let's take a look at some of these allegations. A special panel of veterinarians expert in euthanasia scrutinized the harvest procedure on the Pribilof Islands this summer—1971—and determined that the current harvest methods were as humane as any so far devised. Comments by some individuals that stunning the seals with clubs was primitive, and therefore brutal and cruel, brought about efforts by the Government to develop possible alternative cropping methods. Of all those tried to date, the only one that shows merit for possible further research is that on which the American Humane Association ran preliminary investigations this year, involving drug immobilization and stunning. Though it may not be any more humane than current methods, it may be more esthetically acceptable to those who abhor the apparent violence of the swinging club.

In regard to the money incentive as the primary stimulation for the annual harvest, this was true in earlier history, but nowadays is not. The annual harvest is in reality the population control phase of the overall comprehensive fur seal management plan, and it is fortuitous that a byproduct of the operation—the pelt—is economically viable and contributes substantially to meet the costs of the overall program, including the maintenance of the Aleut community.

Proponents for prohibiting fur seal harvests say that pelagic sealing, which would result from an abrogation of the fur seal compact, is really not that serious. But it was pelagic sealing that brought the herd to the brink of extinction prior to the compact, with its inherent indiscrimination of seal sex and age, wastage through unretrieved carcasses, and the suffering of abandoned wounded seals, as well as uncontrollable quotas. Those who say that the seal harvest should be stopped, and international negotiations entered into by the Government to prevent pelagic sealing have the cart before the horse, even if prohibition of cropping was feasible. One only need look at the effect on international whaling of the blue whale protection by the United States to realize the futility of unilateral action alone on international wildlife species.

There is need for international cooperation in natural resources, especially those as dynamic as wildlife. Aside from the actual fur seal management program underway, cooperation from international commercial fisheries should be sought in the burning or otherwise complete destruction of portions of synthetic netting instead of throwing them overboard as is the custom. The increase in numbers of fur seals with such fragments of net around their necks has been noted attendant with the increased exploitation of the fishery resource of the Bering Sea. Such pieces of netting work down on the seals' necks, and, working deeply into the fur, cut into the neck musculature, ultimately causing death. The number of seals that are caught and drowned in fish nets is not known, but may be of considerable magnitude. Further, investigations into the effects of the increasing commercial fishing fleets in the Bering Sea on the food fishes of the breeding fur seals should be initiated, as they may affect the period of time and distance that mother seals may have to forage before returning to nurse their pups on the rookeries. This may be an important factor in pup mortality from malnutrition and starvation, and if found to be so, may require international cooperation in prohibiting commercial fishing within a distance, for example, of 100 miles around the Pribilofs and other breeding areas.

It is abundantly clear, therefore, that any proposed legislation pertaining to marine mammals must include provisions for rational management, of which research, possible habitat improvement, and population manipulation are integral parts.

In the case of the fur seals, a lack of management will result in the resumption of pelagic sealing by other nations, with its resultant suffering and wastage, and, combined with increased natural mortality, culminate in a Pribilof seal herd which will undoubtedly stabilize at an unacceptably low population.

Rational management is a necessary requisite for wildlife, not only from a natural resources standpoint, but also for humane principles.

Mr. DINGELL. Mr. Denney, the committee is grateful to you for your statement.

Mr. Pelly?

Mr. PELLY. Mr. Denney, is the method used to kill mink for furcoats humane?

Mr. DENNEY. Mr. Pelly, this is probably a matter of opinion. I am not acquainted with the method used by all mink farmers.

Mr. PELLY. I do not know if all the mink farmers use the same method.

When I was in Alaska, I was told that the mink has a characteristic that it will grab with its teeth anything that comes near it.

In fact, I almost lost a finger by one of these creatures. They use cyanide on a stick and it just touches the top of the tongue of the mink and it just drops dead immediately.

Could that be used for seals?

Mr. DENNEY. I do not actually know.

I suspect that the limitation on the possible utilization of a carcass would be affected by the use of a chemical such as cyanide in the harvesting of seals.

Mr. PELLY. The purpose of using this method is that it does not in any way harm the pelt.

Mr. DENNEY. The pelt; yes.

Mr. PELLY. Well, I see you do not have the answer, but I think in a study of humane treatment in killing of animals that someone should come up with an answer as to whether the killing of mink by such a method or other methods of which I do not know are inhumane.

Mr. DENNEY. There are several methods used on mink farms, but I suspect that a poison such as cyanide might come under attack by many people as witnessed by the public outcry regarding the poisoning of predators.

Mr. PELLY. Well, if you are going to kill them I do not see that anybody could object to the most humane method possible.

I am hopeful, maybe, that the question could be answered by some Government officials or scientists.

I will ask some other witness to supply that or if you could supply for the record, it would be appreciated.

Mr. DENNEY. In regard to mink farming, sir, I am not that well briefed on that situation.

Mr. PELLY. Thank you.

Mr. DINGELL. Mr. Kyros?

Mr. KYROS. No questions.

Mr. DINGELL. Mr. de la Garza?

Mr. DE LA GARZA. No questions.

Mr. DINGELL. Mr. Anderson?

Mr. ANDERSON. I want to commend you on a very fine statement.

You say in your second paragraph that ocean mammals should be not only protected but properly managed on sound principles.

I am sure that you have read H.R. 10420.

Do you feel this concept applies to your remarks here?

Mr. DENNEY. Mr. Anderson, I do feel that of the marine mammals legislation which has been proposed, H.R. 10420 comes closer to providing for comprehensive management of the species involved.

Mr. ANDERSON. Are there any particular parts of the bill that you feel could be improved and if so, do you have any suggestions that you would like to make at this time or later so when we try to make this a finished product, we can have your counsel?

Mr. DENNEY. We have no specific recommendations to the altering or the wording of the bill.

Mr. ANDERSON. Thank you, very much.

Mr. DINGELL. Mr. Potter?

Mr. POTTER. No questions.

Mr. DINGELL. Let me ask a question, if you please, Mr. Denney.

You are aware of the fact that the committee has a series of bills before us, H.R. 6554 and H.R. 10420. As I followed your statement, I do not note that you have expressed any particular preference between those bills. Would you care, on behalf of the American Humane Association, to express a preference on these bills in light of your statement?

Mr. DENNEY. Part of my answer to Mr. Anderson I think would apply, Mr. Dingell, in that by specifically not mentioning bills in our presentation, it would imply, of course, that the provisions of H.R. 10420 meet for the most part what we would expect in a marine mammal protection bill.

Mr. DINGELL. You said "for the most part." I think that is important.

I think it is equally important that you should have said that the provisions of H.R. 10420 meet the views and recommendations of the American Humane Association.

Would you want to indicate to us what "for the most part" means so we can have a full understanding of the position of yourself and the American Humane Association?

Mr. DENNEY. I think I am safe in saying that we are in agreement basically, but that there are other concerns, I think, or perhaps questions brought up by the bill, perhaps aside from the humane aspects which may have to do with the jurisdiction of States on marine mammals within their jurisdiction or as they have been, and the transferral from the Department of Commerce to the Department of Interior of the responsibility for administering the phases of the bill.

Mr. DINGELL. Is that a matter of reservation in your association?

Mr. DENNEY. No; it is not.

Mr. DINGELL. As a matter of fact, I look at it as a very delightful and wholesome step forward in good management practices. Please continue, sir.

Mr. DENNEY. Yes; our indication is that regardless of the bills pertaining to marine mammals, we desire that management be an integral part of this legislation; that protection alone is not management, although it is a phase perhaps of a desirable management plan, as is harvesting or population control or habitat improvement or manipulation in this manner.

We are in favor of any legislation which integrally provides for rational management.

Mr. DINGELL. And I think it would be fair to say humane management.

Mr. DENNEY. This would be inclusive; yes.

Mr. DINGELL. Mr. Pelly?

Mr. PELLY. Thank you, Mr. Chairman.

How large a membership do you have in your association?

Mr. DENNEY. I cannot give you data on the basis of individuals, sir. The American Humane Association is a federation of the various member societies which are incorporated individually within States or political subdivisions of States. Of the some 1,030 humane societies and SPCA's in the United States, we have a membership of some 327 of these societies.

Mr. PELLY. And these are the same humane societies that take care of animals in the cities? Are you connected with them?

Mr. DENNEY. We are a federation of the various societies individually which are incorporated within States or subdivisions of those States.

Mr. PELLY. Thank you.

Mr. DINGELL. Mr. Denney, the committee is very grateful to you for your very helpful statement, and we thank you for your courtesy to this committee.

Our next witness is Mr. John A. Hoyt, president of the Humane Society of the United States. He is accompanied by Mr. Frank McMahon.

Gentlemen, we are happy to welcome you for such statements as you choose to give. Will you identify yourselves for the purpose of the record, and we will be pleased to receive your statement.

STATEMENT OF JOHN A. HOYT, PRESIDENT, THE HUMANE SOCIETY OF THE UNITED STATES; ACCOMPANIED BY FRANK McMAHON, DIRECTOR OF INVESTIGATIONS

Mr. HOYT. Mr. Chairman and gentlemen of the Subcommittee on Merchant Marine and Fisheries, I am John A. Hoyt, president of the Humane Society of the United States, a national organization of humanitarians that has for the past 17 years dedicated itself to the prevention of cruelty to animals. At the same time, and especially more recently, this organization has joined with several other conservation and ecological organizations in a determined effort to insure the proper management and protection of all animals and mammals toward the end that no species now surviving will suffer the fate of those which no longer populate our planet.

I have asked Mr. Frank McMahon, director of investigations for our organization, to accompany me to the witness table, because he has been in Alaska and on the Pribilof Islands to witness the northern Pacific fur seal hunt. Mr. McMahon was the only representative of a humane society on the task force appointed by the U.S. Department of the Interior to observe and study the seal hunt in 1968. He has also been present at the hunt in 1969, 1970, and 1971.

I wish to compliment this committee for the genuine concern it has expressed over the years for environmental and conservation problems pertaining to marine mammals and for the past recommendations you have made affecting other legislation directed toward animal welfare.

In my testimony today, I should like to speak to certain issues contained in two bills now being considered by this committee: H.R. 10420, introduced by Mr. Anderson; and H.R. 10569, the amended bill introduced by Mr. Pryor. Both bills have much to commend them and, in general, the Humane Society of the United States supports the purpose and objective of both. There are, however, several issues raised in both to which I wish to speak.

First, let me speak to those issues contained in Mr. Anderson's bill, H.R. 10420. In section 107(a) there is an exception to the bill "with respect to the taking of any marine mammal by Indians, Aleuts, or Eskimos who dwell on the coast of the North Pacific or Arctic Oceans if such taking (1) is done solely in accordance with customary traditions as an adjunct of the native culture." I very much welcome and support this exception. Although the Humane Society of the United States has for the past several years been on record opposing the clubbing of the seals on the Pribilof Islands it has not been our purpose or intent to discredit the Aleuts or to seek to infringe upon their customary traditions or culture. We respect that culture and do not desire that they become either the pawns or victims of efforts directed toward the elimination of cruelty to marine mammals or the protection of various other species.

Also, I heartily support paragraph (2) of this same section 197(a). However, this bill makes no provision for an alternate source of livelihood for those native to the Pribilof Islands if and when this provision is enacted into law. It is quite clear from our observations on the Pribilof Islands that there is currently little or no other employment possibilities for these people. I strongly urge that this commitee give very serious consideration to the fate of these persons in light of this provision.

In paragraph (2), section 107(b) it is stated that "the Secretary shall by regulation specify the methods of capture, supervision, and transportation applicable in the case of marine mammals captured under the authority of this subsection." It is in regard to this provision that I wish to register serious concern and to call to your attention that the current Secretary of Commerce, Mr. Stans, has already concluded that the taking of seals on the Pribilof Islands by the method of clubbing is humane. I have also noted that a special panel of veterinarians reported that the annual harvesting of seals on the Pribilof Islands was "highly efficient and humane."

For me to challenge that report and the statement by Mr. Stans would seem presumptuous. However, there are many thousands of intelligent and responsible persons throughout this country who do not agree with this conclusion, one such person being Mr. McMahon who has witnessed the clubbing of these seals for the last 4 years. In saying this, I do not question the integrity or credentials of those veterinarians making the study. However, I do question the circumstances under which both they and Mr. Stans observed this hunt.

Mr. Stans witnessed one kill for approximately one-half hour. He did not witness the drive from the rookeries. The veterinarians, on the other hand, were present for 1 entire week, a reasonably adequate time to observe all aspects of the taking of these animals. In both cases, however, their presence was well publicized as well as the reason for their being there. Now it does not take much imagination to realize that when one is being put to the test, he will be especially careful to perform according to the expectations of those observing him. Most of us attempt to put our best foot forward when we are aware that it is greatly to our advantage to do so. I submit, therefore, gentlemen, that this particular observation was not an altogether accurate barometer of what, in fact, has happened in conjunction with taking of the seals on other occasions.

But let me also be perfectly clear in stating that I am not suggesting that the Aleuts practice deliberate brutality. Our organization has never made such an accusation. Nor have we offered the opinion that some of these seals are skinned alive. Rather, we have noted that while it is, in fact, possible to kill one or even a hundred seals humanely by the method now being employed, there are many that are not killed with a single blow for various reasons, one of which has to do with the efficiency and skill of the man yielding the club. Obviously, it is not possible for every man, on every occasion, to be 100-percent accurate. Nor is it possible to control the movement of the seal about to be clubbed. It is neither the intent nor the conscientiousness of the man wielding the club that we question, but a system which is both antiquated and repulsive. And for reasons I have already suggested, as well as many others which I shall not list at this time, it is, by the standards of many concerned persons, both cruel and inhumane.

It is our contention that this Government, which on numerous occasions has declared humaneness to be a matter of public policy, should pursue with great deliberation a more humane method of slaughtering these seals. There is no little suspicion that the U.S. Department of the Interior, and more recently the Department of Commerce, has been more concerned to justify the clubbing of the seals than to seek an alternative method for their slaughter. I urge, therefore, gentlemen, that you consider most seriously the indignation that many of us feel regarding this method of slaughter and provide for the exploration of an alternative method that is totally humane and esthetically acceptable if this activity of killing seals is to continue.

Toward that end, I strongly recommend that the Marine Mammal Commission called for in this bill be established and that it be empowered under section 202(a), paragraph 3, not only to "undertake or cause to be undertaken studies * * * for determining the need for additional measures for the protection and management of marine mammals," but for the humane slaughtering of these mammals also. Further, this Commission should also be empowered to recommend to the Secretary methods for humane slaughter as well as to recommend steps it deems necessary or desirable for the protection and management of marine mammals. I cannot stress too strongly our concern that this Government take every conceivable action possible to insure that when it is deemed necessary to kill any marine mammal, that it be done in a manner that is totally humane. For this reason, I would urge that a representative from one of the major humane organizations also be appointed to this Commission.

Let me now speak briefly to the other bill, H.R. 10569, the amended bill introduced by Mr. Pryor. It is the opinion of our organization that this bill is the stronger of the two and that we support its enactment with minor, but important revisions.

I am delighted that Mr. Pryor has submitted this amended version which includes a more realistic position as regards the Northern Pacific Fur Seal Convention. I support these amendments which will insure that, in the event an agreement with the parties to the Convention cannot be obtained which would ban all killing of North Pacific fur seals, we will not again be faced with the horrendous spectacle of pelagic sealing.

Especially do I support the international character of this bill. While there is much to be said for legislation that would restrict any person of this Nation from participating in the taking of ocean mammals, it is most imperative that this Nation attempt to influence other nations to cooperate in the preservation of the ocean mammal life throughout the entire world. For unless this is an effort that involves all the nations of the world, it may well make little difference that we have imposed this restriction on ourselves. Yet, let us make the beginning, and by example enlist the cooperation and support of others. For it is abundantly clear that our hands are far from clean in this matter.

The indiscriminate slaughter of the walrus by Eskimos and other natives has long been known to humane societies and to officials of the State of Alaska. We have no accurate figures because they have never been made available to us, but we have been informed that three out of every four walrus are wounded and sink, without being recovered by the natives. Obviously this situation could be remedied without interrupting or disturbing the economy of the natives involved.

An official of the Department of the Interior admitted to this committee that no figures were available on the population of almost all of the species of sea mammals and submitted very sketchy estimates of the numbers of sea otters. There is no question that the population of the sea otter has increased, but certainly its population is nowhere near a maximum level, and conservation, ecological, and humane societies are very concerned about what will happen to the largest known population on Amchitka if and when the underground nuclear explosion is conducted.

As regards the Southern sea otter population, we have no definite figures. Our California branch has been concerned with this problem for some time. I have not had the opportunity to contact them but, with the permission of the chairman, I would like to submit a supplemental statement with any facts that they have accumulated, including instances of shooting these mammals from power craft.

Mr. DINGELL. I think that would be very helpful, but the Chair suggests that you do so in as expeditious a fashion as possible because it is our intention to move this bill forward rapidly. Without objection, it is so ordered within the bounds of that statement.

I would remind you and our earlier witnesses that there is a bill outlawing the shooting of animals from aircraft.

Mr. HOYT. This was other power craft, not strictly aircraft.

A great deal of discussion has been held concerning polar bears and the hunting of these creatures from aircraft. Although the hunting of polar bears has been forbidden by Russia, the State of Alaska continues to grant licenses for this purpose. Mr. McMahon questioned several pilots in 1968 and left Alaska with the very firm impression that the killing of these creatures is not confined to international waters. One pilot made the comment that there are not enough gamekeepers to patrol the entire area and, if a perfect specimen were sighted, "Who is to know if it is within 2½ miles off the coast or over 3 miles off the coast?" Mr. McHahon also found growing discontent among the citizens of Alaska concerning the hunting of polar bears from aircraft and the numbers of these animals being killed.

I regret very much that I cannot present you with more detailed figures on the populations of sea mammals and their depletion, but it is obvious that even the Government has made no serious attempt to gather these statistics.

For these reasons, the Humane Society of the United States strongly supports section 102 of this bill which not only provides "for the protection of all ocean mammals from harassment or slaughter," but "declares it to be the further public policy of the United States that negotiations should be undertaken with foreign governments and through interested international organizations with a view to obtaining a worldwide ban on the further slaughter of ocean mammals." We are not finally opposed to a program of proper and human management of these mammals, but until such time as it can be more adequately demonstrated that their survival is not threatened, we support this ban.

There is in this amended version of Mr. Pryor's bill only one section with which I take exception, and that by way of a suggested addition. I refer to section 204(a). If "there be no prohibition against municipal and/or other nonprofit zoos from obtaining written consent from the Secretary to humanely capture a representative number of ocean mammals herein defined for replacement for deceased or otherwise ailing members of these species in these zoos," let it also be required that these zoos guarantee, to the satisfaction of the Secretary, that they can house such mammals humanely. Perhaps this concern will be rectified by the Animal Welfare Act of 1970, but it makes little sense to require that they be taken humanely only to be housed inhumanely. I feel, Mr. Chairman, that this additional provision would significantly strengthen the intent of this section.

In conclusion, I would remind you that such an authority as Mr. Lee M. Talbot of the Smithsonian Institution has said that—

> **During the past 150 years the rate of extermination (of mammals) has increased 55-fold. If the killing goes on at this pace, in about 30 years all the remaining 4,062 species of mammals will be gone.**

It is time, gentlemen, that the citizens of this Nation and the peoples of the world, reevaluate the rationale upon which we base our right to destroy other life forms. Except for man, there is no other living organism on the face of this earth that has the power to act as its own destroyer. And there is no other animal or mammal on the face of this earth that acts to destroy other animals except toward the end of sustaining its own life. Yet, man, throughout history, has acted to destroy both himself and other life forms, often for reasons that have no bearing on his own necessity or will for survival. Even today, we destroy some of the world's most splendid creatures for sport, recreation, pleasure, and luxury. To destroy another living creature as a necessary means to survival is one thing. But to destroy any living creature as a matter of whim is to contribute to our own destruction. As the late Joseph Wood Krutch once said, "To be truly human has always meant to be compassionate."

Mr. Chairman and gentlemen of the committee, I thank you for permitting Mr. McMahon and me to appear before you today on this most important subject. If you have any questions, we will be happy to attempt to answer them for you.

Mr. DINGELL. Gentlemen, you have given the committee a most helpful and interesting statement.

Mr. Hoyt, we are most grateful for your testimony.

You indicated some suggestion with regard to the language.

You have also suggested some additional language and if you have any additional language, we would be appreciative in receiving that.

The Chair recognizes my good friend, Mr. Pelly.

Mr. PELLY. No questions.

Mr. DINGELL. Mr. Anderson?

Mr. ANDERSON. No questions.

Mr. DINGELL. Gentlemen, one question that will be helpful to the committee: Can you explain to us the difference between the American Humane Association and the Humane Society of the United States?

I assume you are both busy doing the same good work, but I would like to know the difference.

Mr. HOYT. The American Humane Association, as Mr. Denney said, is mainly a federation of local humane societies across the country.

The Humane Society of the United States is an individual membership society, essentially numbering approximately 40,000 members.

We do also, however, have affiliated societies, some of which are affiliated dually with the American Humane Association and the Humane Society of the United States and some which make a preference.

As well, we work very closely with many, many of the local humane societies across the country in consulting with and assisting them in their programs for animal welfare.

Mr. Chairman, we also work closely with various city and county governments across the country in that same regard.

Mr. DINGELL. Mr. Potter?

Mr. POTTER. Thank you, Mr. Chairman.

Mr. Hoyt, we have had suggested to us by several witnesses and Dr. Talbot was one of them, the proposition that under some circumstances it is less humane not to kill specified numbers of a given animal population where that population is reaching the carrying capacity of its environment, and begins to suffer from "environmental resistance."

As you probably know, articles have been introduced into the record indicating that the British have run into this specific problem where a specific seal stock is running into very serious problems, involving increased pup mortality and other difficulties.

In cases like this, do you believe that it would be appropriate, under rigidly controlled circumstances, to permit the killing of "surplus" members of that community?

Mr. Hoyt. Yes. Our primary focus and concern is that any killing that is done be done humanely.

That really is the burden of our concern.

We do recognize that there well may be instances where it is necessary on behalf of the animals species itself to control and manage them, given the circumstances.

However, I think as regards the ocean mammals at this point in history, that the great burden of proof is on those who would want to so manage them, for it seems to us from all indications that the extinction and the depletion of these mammals is by far the greater concern at the moment and not how to keep their population down.

If and when it can be demonstrated with a specific and accurate figures that it would benefit these species to do so and that such could be done in a humane manner, certainly we do not object to that activity.

Mr. Potter. Well, if the committee were able to develop legislation which could provide this kind of assurance, that is to say, would indicate that (1) any killing would have to be demonstrably for the benefit of the stock or of the species, (2) the burden of proof would be on the person who proposed to do the killing to show that it was done for valid biological reasons—although there might be economic fringe benefits, these would, in fact, be fringe benefits and not the primary objective of the program—(3) that this entire program were forced to be done in the full light of public scrutiny and (4) that any killing were done in a humane fashion, would you support such a bill?

Mr. Hoyt. Yes; we would support such a bill.

May I simply add this point, that we do not at this moment accept the fact that that is the rationale behind the killing of the northern fur seals and the Pribilof as was mentioned earlier in testimony.

Our testimony is that it is the economic rationale that motivates that and perhaps the controlling of the species is now the rationale to soften the impact of that.

Mr. Potter. There were certainly some disturbing overtones in the testimony of the Department of Commerce last Monday which suggested that in some respects the conservation of the herd which we thought was the primary objective when we reported that bill out of this committee has come to be more of an economic operation.

Mr. Hoyt. I think it is clear it is of economic value to certain interest groups.

Now, the Department of Interior which once upon a time controlled this hunt did tell us, in fact, that the value economically to the Government was nil, that the byproduct, the carcass which is ground up for food for ranch mink was an in and out operation.

It was neither a profitmaking or loss operation, so we are not suggesting that the Government motivation is economic, but we certainly suggest there are various groups that have very specific economic interests in the fur seal.

Mr. POTTER. Thank you.

Mr. DINGELL. Gentlemen, the committee is grateful to you for a very helpful statement and we appreciate your kindness and courtesy.

Thank you very much.

Our next witness is Mr. Robert L. Horstman, Sea Mammal Motivational Institute of Ocean Reef Club, Key Largo, Fla.

We would appreciate it if you would identify yourself fully for the record by name and address and organization.

STATEMENT OF ROBERT L. HORSTMAN, DIRECTOR, SEA MAMMAL MOTIVATIONAL INSTITUTE, OCEAN REEF CLUB, KEY LARGO, FLA.

Mr. HORSTMAN. Thank you, Mr. Chairman.

I am Robert Horstman, of the Sea Mammal Motivational Institute, Ocean Reef Club, Key Largo, Fla.

Thank you for the invitation to address this committee during its deliberations on urgent matters of sea mammal protective legislation.

Much has been said during the course of this testimony concerning the need that desperately exists to protect, by properly managing, the world's ranging herds of marine mammals and in a few moments, I'll direct my testimony, specifically toward Mr. Anderson's bill H.R. 10420, but first, if I may, I'd like a few moments to call to the attention of this committee, the plight of the thousands of ocean mammals now held in captivity.

Although they evoke laughter and applause, the ocean mammal performers in the marinelands, circuses, carnivals, public zoos, and roadside shows so popular in this country and the world, are too often tragic figures. The sea mammal in captivity is a pathetic victim to human greed and cruelty, disguised as entertainment. Commonly neglected, often physically abused, and almost without exception kept in boring and monotonous confinement, ocean mammal entertainers need the assistance this committee can afford in the legislation it now considers.

Marinelands have fostered tremendous caricatures of sea mammals to satisfy their commercial purposes. The tricks trained sea mammals perform don't display the native intelligence of these animals, but rather show us little more than a hungry animal will cooperate to obtain food. But this doesn't satisfy those serious students of marine mammal behavior who believe these creatures are invaluable allies in the bold adventure which this century has seen commerce—the first steps of man under the waters of the sea. These are intelligent and resourceful animals. They should not be allowed into the hands of men who provide only an environment which frustrates this intelligence.

My submitted testimony at this point, contains a number of specific and well documented examples of man's cruelty and ignorance concurrent with the holding of marine mammals for entertainment. In the interest of time, I'll not read them now. But I strongly feel the survival struggles and suffering of these unfortunate creatures, should be noted and recorded for all to see.

One of the three largest marine exhibits in Florida keeps sea mammals in an environment which violates the deep instinctual needs of the animals. A staff of four animals handlers, some of whom have only slight training, are responsible for the care and training of 24 sea mammals and numerous other animals including wildcats, birds, alligators, turtles, and fish. This exhibit enjoys wide popularity. Yet, it presents the public with only the sparest notion of sea mammal behavior. Animals are confined to dismal, murky tanks. Animal performances emphasize clownish behavior and feats of strength which in repetition may damage their bodies. At the same exhibit, there are four sea lions kept in quarters so small the animals haven't reached full growth, nor do they vocalize. This aberrant behavior, I believe, is a result of being kept in substandard conditions.

Recently, during the seizure of red tide which plagued Florida's gulf coast, an employee of the same exhibit opened a valve improperly and admitted contaminated Gulf of Mexico waters into the exhibit's shark canal. Consequently, an entire population of 10 sharks and several stingrays died. It shouldn't have happened to the sharks. A mistake, you say, but not long ago at the same place, two sea lions died, thrashing in pain because of an overchlorinated tank.

These animals for the most part are kept in small, crowded, and dirty holding tanks. Abusive training methods are also standard parts of the trade—starvation of the animals being an almost universal practice.

In a commercial exhibit in the Florida Keys, 11 dolphin have died since January 1970; reason—poor care and malnutrition, resulting in pneumonia.

Of three dolphin shipped to Europe a few months ago, two died in the back of a truck of carbon monoxide poisoning while their handler, who, under Florida guidelines should have been with them, rode safely in the cab. This handler still retains her permit, even after this flagrant violation. The surviving dolphin, if still alive, no doubt lives alone, a poor fate for a social animal such as the bottlenosed dolphin.

Last year, in Florida waters, 215 dolphin were reported captured. Fifty-five died prior to sale. I'm told this many captured dolphin could very well represent the total birth production of 4,000 to 5,000 animals. We don't even yet know how many animals there now are in Florida waters.

At a large west coast public acquarium, five narwhals have been captured and transported from the Arctic during the past year. They've all died.

The sad history of the killer whale reads like this: In 1964, the first was captured. Now there are about 19 in captivity, only about one-half of which have adequate holding facilities in which to live. Most can't even stand upright or maneuver in their tanks.

The commercial exploitation of sea mammals as cheap, captive performers must end. And this committee should enact those portions of the legislation now before it, which would prevent the taking of marine mammals by irresponsible institutions, both public and private.,

There are alternatives to the present system. I'd like to explain the success that I, my wife Nina, and our staff at Seamamm, have had over the period of the last 4 years. While we talk, if the committee has sufficient interest, I can project a short film which exemplifies, I think, the type of relationship that becomes possible with mutual respect. We work with two seals and two sea lions on a "free-release" basis. Although "free-release" isn't widely practiced, we find it works if animal handlers take the time and offer the devotion the method requires. We believe the method is the best available tool for studying marine mammals and that it's the proper method of relating to them.

Mr. DINGELL. The committee would be happy to see the film.

(Showing of film.)

Mr. HORSTMAN. Our program has two fundamental elements. The animals aren't confined to cages but are able to move freely about our station on land and in open waters at sea. The animals also receive individual attention from individual trainers. They're seldom in confinement. In short, we believe the care and training of sea mammals is a full-time job which brings with it tremendous responsibilities. But if these responsibilities are met, rewarding interaction between animals and humans is possible.

All of our animals regularly work with trainers in the open waters, off the Atlantic and Gulf of Mexico. Their willingness to follow directions and perform tasks for men in this environment and then to return to our boat when finished, convinces us that they've achieved a high level of identification with us. Perhaps they've even made some type of choice to remain with us rather than venture back to the open sea.

Already we've learned many things about these highly intelligent, graceful, very strong, and alert animals. And among the lessons of greatest relevance to this committee, we've learned that pinnipeds stand ready as the creatures who can assist men as they seek to enter the sea.

Our pinnipeds have learned to perform tasks which are valuable to men but which men, in an environment of water, can perform only with difficulty. Our animals cooperate with divers in the retrieval of tools, towing objects, handling lines, and underwater navigation. Man's relation with the dog in a terrestrial environment, gives us an appropriate analogy for the role sea mammals have in an oceanic environment.

A human diver with sea mammals by his side, would have an assistant who could save energy for the diver by filling an envoy's role. And as these animals have shown their willingness to cooperate in these simple tasks, it seems likely to us they can be trained to more complex tasks.

Three of our animals, for instance, have been taught the rudimentary elements of a banking system, which employs plastic discs as the medium of exchange. Rewarded underwater with a disc, Tinkerbell, Vicki, or Rocky will swim to the surface and cash this currency for fish. We devised this system to skirt the dangers of carrying chopped fish in shark trafficked waters. The animals have adapted to this method quite well. They've even been persuaded to deposit their discs in a savings account, for short periods of time. Gentlemen, your colleagues on the House Banking Committee will be happy to learn we've escaped most problems of devaluation. The rate of exchange has held constantly at one mackerel chunk for each disc.

Much of what I've said comes to this point: Research that seeks beneficial relationships between man and these creatures, without exploitation of the species, is pursued as a rarity. Instead, as we can see from previous testimony, policies of national industrial carnage and commercial exploitation, have dictated the first critical encounters between man and sea mammals. A review of the history and current affairs in this slaughter and abuse of almost every species of sea mammal, creates an absolutely sickening feeling in those of us who have enjoyed the close companionship of these animals. When we see the approaching extinction under current policies of the great whales or the Pacific porpoises', unconscionable destruction as a happenstance to the tuna industry, we can only ask what fools are these men who pretend to harvest the oceans while destroying the source of their bounty?

With important modifications, H.R. 10420, designed to protect marine mammals and to establish a Marine Mammal Commission as introduced by Congressman Anderson, represents the type of law required. However, a complete moratorium on the taking (as defined in the bill), of ocean mammals, must ensue for a short period of time, to allow for critical census and deeper social and behavioral understanding of ocean herds and the results of harvesting them.

With the eventual lifting of the moratorium, the present commercial development of ocean mammal products which are largely wasteful and frivolous, must not be resumed. The fur and perfume industries have carried out their bloody business too long on behalf of the comfortable ladies of Scarsdale and Beverly Hills.

After the moratorium, stringent, yet intelligent, restrictions must be placed upon the taking of these animals for purposes of research and display. Certainly, the casual destruction of sea mammals for scientific or entertainment purposes, must be stopped. Also, it would benefit us all if man would seek to understand these animals in their natural environment as much as they seek to transport them to laboratories for study. Men will learn the most critical lessons through the close study of sea mammal ethnology and behavior. These are the original harvesters of the sea and the most intelligent form of life adapted to the oceans. They, like us, live on land and fled for survival, to the sea. They can teach us much about our own physiology in an alien environment. Also, much consideration should be given to section 3, paragraph 4, which excepts from the bill, the taking of marine mammals which occurs as an incident to commercial fishing.

The business of this Nation will not be finished by the enactment of strong national laws, however. This Nation governs only a fraction of the world's oceans. Sea mammals make their homes and follow paths of migration where U.S. law bears no weight. Hence, this committee should bring to the Congress' attention, the unfortunate reluctance of our Secretary of State to become sympathetically involved with the plight of these creatures. Other nations, particularly Russia, Japan, and Canada, must be persuaded to the wisdom of a moratorium on marine mammal slaughter. Both bills presently instruct the Secretary of State too lightly in this matter. The Congress should develop sanctions to urge the Secretary to his duty.

There's much wisdom in the Anderson bill in that it proposes a Marine Mammal Commission and Scientific Advisory Board. However, the enormous failure of the International Whaling Commission is too current to allay doubts that such a structure would work by itself. Initially, the moratorium is necessary to allow certain species near depletion, to regain strength and to allow the necessary work of animal population counts and behavioral studies to proceed. After a period of at least 5 years, some relaxation for scientific and legitimate commercial purposes may be allowed, under the close scrutiny of the Commission. And new take limits must be set in a highly species specific manner. Certainly, there should be no more slaughter for frivolous products which easily can be provided by other means. The moratorium on all species should only be relinquished when the animal taker can prove to the Commission that his use is important and nonendangering.

Finally, I'd like to offer to the members of this committee, an invitation to visit either as a body or individually, the project we've underway at Seamamm in Florida. We're proud of the steps we're taking toward the exploration of the sea. There is an unfortunate history to the settlements of frontiers by the United States; a history characterized by destruction, genocide and bloodshed. This need not continue to be the case as men enter the sea. I invite you gentlemen to see for yourselfs how successfully men can win the companionship and assistance of these animals.

I respectfully urge you to suggest to the Congress, enactment of H.R. 10420, with the addition of a 5-year moratorium and an abandonment of the tuna industry productive definition.

Mr. DINGELL. Mr. Horstman, you have given the committee very impressive testimony and the movie you have shown us has been a very moving thing.

I think your guidance in this area can be of extraordinary value.

Mr. Anderson?

Mr. ANDERSON. No questions.

I do want to commend Mr. Horstman on a fine presentation.

Mr. DINGELL. Mr. Potter?

Mr. POTTER. Mr. Horstman, do you consider that this moratorium which you have proposed would create problems for the operators or zoos or public display operations which are now in existence?

Mr. HORSTMAN. Yes, Mr. Potter, I do.

Prior to designing some type of a philosophy at Seamamm concerning legislation we could live with, I talked to a number of scientists and a number of exhibitors throughout the country, talking basically about the idea of a moratorium prior to the implementation of a permit system.

I think one of the most significant things I heard during that expedition for information was that the large exhibitors expressed a fear that even a short 5-year moratorium would work a hardship on them because of their high mortality rate.

They are just not able to keep their animals alive long enough to survive a 5-year moratorium.

I think that is a question you should ask someone from one of the marinelands. They will be here to testify and I think that question could be asked to see if they agree with me.

Mr. POTTER. What is the average life expectancy of these animals?

Mr. HORSTMAN. For porpoises in the wild state, it could be 25 or 30 years.

Sometimes, ironically enough, you will find a longer life expectancy for a ranging animal in captivity, if you can call what is left of that animal an animal because he does not have to fight for his food and mate and so forth.

Mr. Potter. If they cannot keep an animal alive for 5 years under "optimal" controlled conditions, and the animal will live in the wild for 25 years, that indicates something is wrong.

Mr. Horstman. Yes, certain segments of my testimony, if you are sufficiently interested, will point out some frightening specific examples of the loss of these animals in captivity.

It is interesting to note and I do not know whether this has been brought out by any of the population dynamists, but when you are talking in terms of marine animals, and talk in terms of 200 or 300 individuals captures you must realize that it is quite possible that represents the total birth production of 4,000 to 5,000 animals.

It is also significant to note that we do not know how many dolphin we have in Florida.

I do not know how many porpoises are out there. I do not know if the tuna industry really knows how many are getting caught in their nets.

We have to have some period of time to get this data.

We do not have it and do not know the effect on a herd or pod of marine mammals when we do kill one or two of their members.

You may not be able to apply the principles of wildlife management as it relates to a terrestrial herd to an ocean ranging herd.

We do not know socially or behaviorally enough to say that what works for a herd of buffalo will work for a herd of whales.

Mr. Anderson. Were there any exceptions to the moratorium?

Mr. Horstman. Any exceptions?

Mr. Anderson. Your idea of a moratorium.

For example, I recently visited Barrow, Alaska, where there are some 2,400 Eskimos who say they depend upon the walrus harvest.

When you talk about a moratorium were you talking about a moratorium across the board or just a specific industry?

Mr. Horstman. I was, Mr. Anderson, talking to it across the board, and I approached it from that angle.

Now, when we get into the subject of aboriginal hunting and so forth, and use traditional methods of hunting, I suppose we would have to have some respect for the culture that we are entering.

I do not think that the snowmobile, airplane, and outboard motorboats, however, are part of that traditional culture.

Mr. Anderson. Thank you.

Mr. Dingell. Mr. Horstman, you have given us most helpful testimony and we certainly thank you.

Mr. Rountree?

Mr. Rountree. I have just one question. If you could perhaps provide a statement for the record, it would be sufficient.

I am interested in whether or not in your knowledge there are any existing laws on a Federal level which will seek to regulate the care and condition of ocean mammals in a captive state.

Then, as a corollary to that I am sure there are a number of State laws which regulate habitat conditions.

Now, based upon your testimony, I would assume that these State laws would be somewhat inadequate.

Is that a sound conclusion to draw?

Mr. HORSTMAN. Mr. Rountree, yes; your conclusion is sound.

The State laws that I am aware of (and I'm only aware really of the State of Florida) are inadequate. The guidelines of the State of Florida for the capture, holding, and transportation of marine mammals represent a threshold kind of a situation.

Mr. ROUNTREE. I want to ask you this, then. Perhaps you can submit an answer for the record.

In your opinion, do you feel that this is an area which you have been alluding to in your testimony where the Federal Government should, in essence, preempt the States and enact a uniform Federal law on this problem with perhaps provisions for cooperative agreements with the States?

Mr. HORSTMAN. Yes, Mr. Rountree. I believe it is necessary.

Mr. ROUNTREE. Thank you. No further questions.

Mr. DINGELL. Thank you, Mr. Rountree.

Mr. Horstman, you have given us most impressive testimony and we do thank you.

Our next witness is Mr. John C. Walsh, field officer for the International Society for the Protection of Animals.

Mr. Walsh, we are happy to have you with us.

If you will identify yourself for the record, the Chair would be most pleased to receive your testimony.

STATEMENT OF JOHN C. WALSH, FIELD OFFICER, INTERNATIONAL SOCIETY FOR THE PROTECTION OF ANIMALS

Mr. WALSH. I am John C. Walsh, field officer for the International Society for the Protection of Animals, located in Boston, Mass. Our headquarters are located in London.

It is a well known fact that many species of wildlife are gradually moving toward extinction, some species faster than others. Whenever a species is sought for commercial reasons, the resulting pressure causes a rapid decline in that population. Most notable are pressures created for reasons of vanity by the fur industry. The sea otter and the northern fur seal are classic examples. They, too, are shining examples of an effective conservation program attempting to restore a species to full biological productivity through international cooperation.

Although few modern species of new world or marine mammals have been directly exterminated by man, it is nevertheless true that almost any of these species which have a considerable value for food, fur, oil, or other products, as well as those having a less tangible interest in taking game animals for trophies are endangered increasingly with more intensive killing methods of modern times and with the human population growth and consequent reduction of areas available for their support.

Although marine mammals are seen by fewer human beings than any other group of animals, they are most notably in need of protection. The alarming statistics indicating the decline of the world's great whales and the ineffectiveness of the International Whaling Commission to deal with regulating the slaughter, have been graphically described at these hearings. The use of sophisticated electronic devices have decimated the whale population to mere remnants of their former levels. The use of aircraft in taking polar bears has created waves of public indignation.

In a recent statement I received from an official of the State of Alaska Department of Fish and Game who has been studying polar bears for several years, it was reported that:

> The demand for polar bear skins is so great that when aircraft hunting is allowed, it is profitable for aircraft hunters to kill bears for commercial sale of skins. This illegal hunting, when done in conjunction with legitimate use of aircraft for hunting, is extremely difficult and perhaps impossible to control. Polar bears taken in this manner are not accounted for in harvest statistics and the number taken could be large enough to substantially reduce the bear population.

I recently received word that Norway has banned polar bear hunting safaris, effective January 1, 1972. The U.S.S.R. issued a special act in 1955 entitled, "Measures of Arctic Animals Conservation" which prohibits polar bear hunting in that country. During the first International Scientific Meeting on the Polar Bear held in Fairbanks, Alaska, in 1965, the U.S.S.R. delegation proposed the following:

> In view of the fact that the polar bear is found on the territory of several countries, and that its members have decreased throughout its range, necessitating effective measures for its conservation, it is desirable that all nations having possessions in the Arctic prohibit the harvesting of polar bears. As a minimum measure, to prohibit the harvesting of this species for a period of five years beginning January, 1966, and subsequently to limit it.

Needless to say, this proposal was not implemented.

The use of aircraft has also been detrimental to hair seals in waters off the coast of Canada. As a result of the inability to supervise the activity of hunters operating from fixed wing aircraft and the cruelty allegedly prepetrated by these hunters, the Canadian Government banned the use of aircraft in taking seals.

Considerable publicity has surrounded the killing of seals in Canadian waters. A great deal of emotion is aroused when one sees a defenseless seal pup clubbed on the head. Regardless of the emotional ramifications and the allegations of cruelty, hard scientific evidence indicates a massive overkill of seals in waters off the coast of Canada. Many of the pelts of these seals find their way into the U.S. market. Although Americans are not involved in the killing of these seals, we share the responsibility for decimating the once plentiful harp and hooded seal herds by allowing these skins to be processed or sold in the United States.

A total ban on the importation of seal skins into the United States will help guarantee the much needed protection for those species.

Underlying all of the obvious threats to the mammals which inhabit the great oceans, one consideration remains prevalent, and that is those factors which are unknown. Within the past 2 years, mounting evidence has been gathered indicating high levels of hard metals in most species of marine mammals. Residual pesticides are finding their way into the seas and scientists have been unable to monitor the effects of these pollutants on population levels of marine mammals.

Foreign fishing fleets are increasing in size in waters off our coasts and their increased catches undoubtedly have a marked effect on the marine mammals competing with them for food.

These and many other factors must be studied for several years by competent scientists to assess their immediate and long-term effects on marine mammal populations before any meaningful quota can be established for taking these animals.

The last decade has seen much progress on these matters and a wider awareness that the time has come when immediate steps are necessary to preserve such assets before their depletion has gone beyond a point of no return.

In continuing on the legislation, Mr. Chairman, we fear the termination of the Interim Convention of 1957 on the Conservation of the Fur Seal, if the unamended version of the Harris-Pryor bill were considered we could not support this because of the fear of resumption of pelagic sealing.

We feel H.R. 10420 is worthy of consideration after certain changes have been made.

I feel these changes should include the section that provides for the taking of marine mammals which occurs as an incident to commercial fishing operations is unacceptable considering the number of porpoise taken by the tuna fishermen and the already hard-pressed tuna industry as the gentlemen who were here earlier described, we feel the bill should include funds for studying new methods to be employed in the taking of tuna which would cause no harm to porpoises.

Perhaps I had better read our entire recommendations.

No. 1, an import restriction on all products derived from marine mammals.

No. 2, the section which provides an exception for the taking of marine mammals "which occurs as an incident to commercial fishing operations" is unacceptable. Considering the number of porpoises taken by tuna fishermen and the already hard-pressed tuna fishing industry, we feel that the bill should provide:

(*a*) Funds for studying new methods to be employed in the taking of tuna which would cause no harm to porpoises;

(*b*) For setting a deadline for use of the current method, and;

(*c*) For a form of inspection to determine porpoise mortality and for setting further guidelines for porpoise protection.

No. 3, we feel the structure of the Commission to be appointed should allow for unpaid advisers representing conservation and humane interests.

No. 4, because of the lack of information on population dynamics and unknown factors influencing the population levels of marine mammals such as recent developments showing accumulation of certain toxic metals, pesticides, and other forms of pollution, adequate funds should be made available to undertake relevant studies to restore marine mammal stocks to full biological productivity. A 10-year ban on the taking of all marine mammals should be implemented immediately while this study is being undertaken. ISPA staff is willing to cooperate and work with your office should you wish. In the meantime, we would appreciate the Commission's consideration of the above proposals.

Thank you, Mr. Chairman.

Mr. DINGELL. Mr. Walsh, the committee is grateful to you for a very helpful statement.

Mr. Anderson?

Mr. ANDERSON. Thank you, Mr. Chairman.

I do want to commend you and thank you for your kind remarks on our bill.

There is a question I have on page 3, because it seemed to be a little different than the source of statistics.

On page 3 you are talking about the baby seals.

You say many of the pups of these seals find their way into the U.S. markets and that we share responsibility for decimating the once plentiful herds by allowing these skins to be processed or sold in the United States.

You heard people in the business say they are not finding their way here and are not being processed here.

Do you have evidence to sustain your position?

Mr. WALSH. Yes; I have been attending the Canadian seal hunt in the Gulf of St. Lawrence since 1966, and we have worked to improve that seal hunt, as a great deal of cruelty did occur in the killing of the seals. The Canadian Government appointed a committee made up of scientific and commercial interests and humane conservationists.

At this committee, Mr. Dean Fisher had said that a lot of the skins of harp seals, I am not saying the pups, but the harp seal skins are coming into the U.S. market.

Mr. Stanley Dudka, of the Division of Enforcement, of the Canadian Ministry of Fisheries, said the skins were going into New York.

I have talked to somebody who will be testifying on the 23d and I have agreed to research this and provide the pertinent data that I have obtained for testimony on the 23d.

Mr. ANDERSON. I want to understand what you are saying. You say a great deal of emotion is aroused by the killing of the defenseless seal pups and in the next line you say many of the pups of these seals are brought in. Are you talking about the baby seals?

Mr. WALSH. We are talking about the seals generally, harp and hood seals, the Canadian seals.

Mr. ANDERSON. You feel you can show evidence there are baby seals coming into the United States today?

Mr. WALSH. I will attempt myself to gather this information from the Canadian Government.

Mr. ANDERSON. Thank you, Mr. Chairman.

Mr. DINGELL. Thank you.

Mr. Potter?

Mr. POTTER. No questions.

Mr. DINGELL. Mr. Rountree?

Mr. ROUNTREE. Following up on Mr. Anderson's question, the next paragraph indicates that you say a total ban on the importation of sealskins into the United States will help guarantee the much needed protection for these species.

Earlier testimony indicated that an import ban would not be at all effective to accomplish this.

Yet, all of these are exported and utilized in Europe.

Do you want to comment on your point in your submission on the 23d?

Mr. WALSH. I have from other members of our organization in European countries learned that they are contemplating legislation that will prohibit hair sealskins going into other countries also.

Mr. ROUNTREE. On the basis of that it would not be a simple denial of an economic motive, but it would be the fact that the United States is taking a world leadership position that would be the reasoning behind your desire for a total ban.

Mr. WALSH. Well, I cannot discuss the economic ramifications. I am sure the officials of the State Department or Bureau of Fisheries could handle that.

Mr. POTTER. On this question of an import restriction, while I am not asking you to do it right this minute, I would be interested in any ideas you may have on the circumstances involved in an import restriction. Would it be appropriate and necessary, for example, if it were shown that animal skins were taken from an animal from the depleted herd?

It seems to me that one problem we are beginning to recognize with the Endangered Species Act is that you have to wait until the species is actually endangered and then it might be too late.

Mr. WALSH. In relation to that, the Canadian Government asked the International Commission for Northwest Atlantic Fisheries to reduce the quota by approximately 100,000 animals this year, I should say effective the next season. They feel there was an overkill.

They set up the regulations and the quotas for taking the seals in the Northwest Atlantic.

Mr. POTTER. That is very interesting. We have received information to the effect that the Canadian Division of Fisheries, in setting the quota for the harp seal harvest this year, set it at about 100,000 over what their chief biologist, Dr. Sargeant, had recommended.

Is your information consistent with that?

Mr. WALSH. The biologist that has provided this information recommended that the figure be much lower than it was.

Mr. DINGELL. As a matter of fact, if I understand it, they are taking on the order of something like 240,000 and the annual renewment is 140,000. This is 100,000 over the annual renewal.

I am curious as to how long that situation can go forward.

Mr. WALSH. That is why I feel that a total ban would be effective.

Mr. DINGELL. I would appreciate having these suggestions.

Thank you very much for your presence and your very helpful testimony.

Our next witness is an old friend of the Chair, one who has been here many times and has worked with me on many projects, a distinguished conservationist, Mr. Charles Callison, from the National Audubon Society.

I note that you have Miss Cynthia Wilson present with you.

If you would identify yourself for purposes of the record, we will be pleased to hear your statement.

STATEMENT OF MR. CHARLES H. CALLISON, EXECUTIVE VICE PRESIDENT, NATIONAL AUDUBON SOCIETY, ACCOMPANIED BY MISS CYNTHIA WILSON

Mr. CALLISON. At my left is Miss Cynthia Wilson, Washington representative of the National Audubon Society.

I am Charles H. Callison, the executive vice president.

I have my office in New York City and spend as much time in Washington as I can, but not enough, because I always enjoy my work here and particularly on the Hill where I have the opportunity to see many old friends. Miss Wilson has her office and spends most of her time in Washington.

Mr. Chairman, as an organization concerned with the conservation of wildlife and with man's relationships to his environment, the National Audubon Society believes it is time to examine anew our national policy with respect to marine mammals. The available evidence indicates that most of the whales have been overexploited for commercial purposes and some species driven to the brink of extinction. We all know how the sea otter was nearly wiped out by man's greed for its valuable fur until complete protection beginning in 1911 allowed it slowly to recover its numbers in coastal areas of southern Alaska and in a colony off the Big Sur section of California. The Pacific fur seal was decimated before an International Convention in 1911 halted indiscriminate slaughter in the open seas and brought the species under management at breeding grounds in the Pribilof Islands and on similar breeding islands under Russian jurisdiction.

We fear that the polar bear may be sliding downhill because of trophy hunting promoted by airlines, outfitters, and other interests who cash in on the ambition of so-called sportsmen to prove their manhood by shooting one of these magnificent but virtually defenseless animals. In the old days it was indeed a test of manhood to get where the polar bears are. But stalking polar bears by aircraft and shooting them with high power rifles takes about as much skill and courage as swatting a fly. About as much bravery and skill also, as shooting eagles from a helicopter.

The furseal harvest has been brought into question by widespread public concern about the humaneness of slaughtering the animals by clubbing them. This is a concern shared by the National Audubon Society. The basic philosophic and moral question, we think, is not whether a bullet or a club or some other weapon is more humane, but whether it is moral to kill animals for the sake merely of catering to man's vanity. Would anybody in the world go cold or unclad if there were no coats made of the luxury furs? The question comes into sharper focus when poaching for the luxury trade threatens the very existence of a species, as in the case of some of the great wild cats.

In the case of whales, I don't think the ruinous exploitation of the great cetaceans can be attributed to man's vanity as much as simple greed for quick profits in an international situation where there has been no real control. When vanity or profits are involved, will mankind ever exercise voluntary self-restraint in the absence of control? History doesn't offer much hope. The early Audubon societies tried to shame women out of wearing the plumage of wild birds with some success, but nevertheless the destructive feather trade continued until it was outlawed at the retail level, and thus the egrets were saved.

In the case of the Pacific fur seal, the committee has before it one bill that would abandon a proven system of international control in the name of humaneness which the U.S. Government could enforce only in territorial waters. Realizing how the legal and illegal hunters of many nations could move into the North Pacific and resume the slaughter of fur seals at sea, we think it is too great a risk to take. We do, however, think good questions have been raised about the fur seal management program and that these questions must be answered. Some of them have been expressed by Dr. William H. Drury, research director of the Massachusetts Audubon Society, and I quote from some recent letters by Dr. Drury to Dr. Elvis J. Stahr, president of the National Audubon Society:

> First biologically: It would be hard to refute the U.S. government justification of a take of immature males. The figures must be based on numbers taken from censuses of an expanding population and annual figures of a population whose annual breeding success and high seas mortality should vary naturally within wide limits. The errors in estimates must be large enough so that one could conclude anything one was predisposed to conclude.
>
> There is a justified question as to the degree of effort which the Federal Government should be making to encourage formation of satellite colonies and even colonies on additional islands as "insurance." No matter how many animals there are on St. Paul, etc., the few colonies which now exist are vulnerable to catastrophes.
>
> I think it would be well to find out whether the fur seal supervisors are thinking in progressive terms of just "culling the surplus" without application of any imagination.
>
> Second socially: I think the time is ripe to question exploitation of the fur seals. The annual cull has been justified traditionally simply because the animals were there and exploitable, as you point out. Our questioning should be sophisticated, however, not restricted to emotional arguments against killing. More colonies of fur seals and more animals to be seen off season in the Pacific is a resource worth cultivating.
>
> It seems to me that there are more general biological questions. For example, the present level of harvesting of the fur seals seems to be based on assumptions that the food supply within the range of the breeding island is a limiting factor of the number of young that will be produced in any given season. This has a considerable amount of logical validity to it, but unfortunately has not been demonstrated to my satisfaction. Furthermore, the Bureau of Commercial Fisheries has not yet identified the size of the original population of the fur seals except some vague indications that suggest the population there may have been several times the size it is now. If so, this contradicts the idea that the present population is exhausting the food supply within reasonable commuting distance of the breeding animals. In addition, I find the present estimates of the population very vague and questionable to say the least. It would seem to me we can well make a strong point that the Bureau should have a much more reliable estimate of the present whole population and its various subdivisions on which to base their management techniques. We should see these and have the chance to test their validity.
>
> If there is evidence, not published in the affidavits, that the present population is in trouble because of food supply within convenient commuting distance, then an energetic effort should be made to encourage the population to establish new colonies on other islands. I can see very little evidence that the Bureau of Commerical Fisheries has considered the fact that some fur seals are establishing colonies off the coast of California now and are well known to be expanding and establishing new colonies on several islands in the Southern Hemisphere. The founding of these new colonies argues against the reasoning that the fur seals are already breeding in all the places where they could survive and breed successfully in the north. This point needs further argument, but I want to keep the memo concise.

Apropos of the harvesting, then, it would seem to me that a real research effort should be put (a) into the reasons for the population decline, (b) attempts to establish new colonies and allow them to grow, and (c) to find out (as an example under the reasons for the population decline) whether the fur seals themselves are contaminated by mercury, PCB's dieldrin or some similar environmental contaminant.

Finally, it seems to me * * * that larger social issues should be addressed * * *. We should put the question to the Bureau of Commercial Fisheries by way of the Congress whether a consuming harvest of fur seals is the primary or the only valid use of this population of animals. The Federal government has put in an investment of time and money in research and management of the fur seal, based on the funds that come back from killing and skinning these animals. We should ask whether in fact they should not feel obliged to make a similar effort to develop other forms of use of the islands, such as tourism. Many visitors would be attracted to see the fur seals and the huge bird colonies on these islands—see Lindblad, etc.

Mr. Chairman, as you know, the Lindblad firm is an organizer and promoter of such tours.

If the resource is developed for a variety of non-consuming uses, then the pressure for this consuming use is somewhat lessened. I think we should ask Bob Davis (Resource Economist, National Audubon Society) whether he thinks that there aren't a fair amount of data to support the idea that the economy of the islands would profit more by expanded tourist trade. I think we could make a point that the number of people who would profit (a) economically from being in the business, and (b) from enjoying the resource, would be expanded by this kind of use. This positive effect should especially be felt if it were associated with attempts to form new colonies of fur seals in several other areas where tourism might be developed.

It would seem to me that the point of economic development should be made in association with the Association on American Indian Affairs which has an office in New York. At present the Pribilof Aleuts are in a relatively feudal circumstance in which the semicaptive people are required to partake in a brutalizing form of livelihood. The Aleuts, if they are at all similar to the Eskimos I have known, are eminently suitable for tourist trade in their outgoing personalities and general friendliness. They, like any people including our own, are readily brutalized and certain elements of the population seem to be predisposed to brutality—but not all. It would seem to me that we ought to make the point that the Aleuts ought to have more choice of a variety of uses for the resources on their island. It would be helpful if they get men like Howard Rock, a native Alaskan Eskimo, in to discuss the whole aspect of this problem before the Society comes out on issues which they may not understand—by they, I mean the Eskimo. Bill Byler, of the Association on American Indian Affairs, is the person to talk to on this.

Mr. Chairman, H.R. 10420 would provide the directive and machinery for accomplishing a new look with fresh eyes at the Pacific fur seal program, and also needed investigations of the condition, and opportunities for improved management and protection, of other marine mammals. We endorse H.R. 10420 in principle, although we strongly urge the following amendment concerning the qualifications of individuals to be recommended by the Chairman of the Council on Environmental Quality for appointment by the President to the Marine Mammals Commission:

On page 16, line 3, after the word management, and before the period, insert: "who have not been nor are in a position to profit from the taking, processing or sale of marine mammals, their skins, or other parts."

Unless such an amendment is adopted, there will be great pressure put on the Chairman of CEQ and the President for representation on the Commission of the fur industry or other commercial and industrial interests whose purpose is exploitation, not conservation.

As an alternative to creation of the proposed Commission, H.R. 10420 could be amended to direct the Secretary of the Interior to perform the duties and services spelled out for the Commission. The Secretary should also be directed to establish and utilize a scientific advisory committee as proposed in section 203.

In endorsing the purposes of H.R. 10420, we are aware that it apparently envisions the transfer of responsibility for marine mammals back to the Department of the Interior. It is our opinion that not only marine mammals but the entire Bureau of Commercial Fisheries belongs in a department where the leadership is less likely to say "wait a minute" to efforts to clean up pollution.

Mr. Chairman, we believe H.R. 10420 is much sounder legislation than H.R. 6554 and similar bills. We do not endorse H.R. 6554.

I thank you very much for this opportunity to present our views.

Mr. Dingell. Mr. Callison, I want to thank you for a very enlightened and helpful statement. I want to particularly commend you and Miss Wilson.

Mr. Anderson?

Mr. Anderson. No questions. I want to commend Mr. Callison for a very fine statement.

Mr. Callison. Thank you, sir.

Mr. Dingell. Mr. Potter?

Mr. Potter. Mr. Callison, were you here when I spoke with Mr. Hoyt about the nature of the bill that it seemed to me has been increasingly pointed toward in the testimony before us? That is to say, that there needs to be a kind of permit system in which there would be a strong burden of proof on the person who wants to take an animal to show it is going to be to the advantage of the herd or the species and that there would be a considerable amount of public scrutiny in looking over the permit grantor to be sure that everything is on the up and up.

This seems to me to be the thrust of the Anderson bill.

Mr. Callison. I am not sure I heard your earlier question. I came in late today, and I did not identify all of the witnesses who preceded me. However, I think I would agree with that principle, Mr. Potter.

This is one of the basic provisions of H.R. 10420, a permit system, a system of controlling the harvest or take of marine mammals through permits.

I just think this needs to be done extremely carefully. I think we need to know where we are going and much more about the condition of the herds of sea mammals, the different populations; and what must also be taken into consideration is the fact that these animals move and live in an international environment.

We need to move with some caution in this area so we do not make the situation worse than it is.

By striking a high moral position, the United States should lead the world in conservation and humane purposes. But we could defeat those purposes by loosening the controls we now have, to the detriment of the animals.

Mr. Potter. In what way?

Mr. Callison. If we rather abruptly abrogated the Northern Pacific fur seal treaty.

Mr. Potter. I take it that is no longer seriously proposed even by the proponents of the Harris-Pryor bill.

They would like to see a treaty in which all countries would say we are not going to kill any more seals; and if we cannot get it, at the very least, you should extend the status quo, at least as far as man's taking.

The committee has also had testimony to the effect of the increasing environmental stresses to which the fur seals are exposed in the sense of the contamination of the system in which they live and the decrease in food supplies.

This is also something that the Department of State should, in its wisdom, explore. We saw very little evidence that the Department of State was doing much in the way of enlightened exploration in that direction.

I have no questions.

Mr. DINGELL. Mr. Rountree?

Mr. ROUNTREE. No questions.

Mr. DINGELL. Mr. Callison, it's always a pleasure to have you before the committee, and Miss Wilson is also welcome.

That completes the witnesses for this morning.

If there is no further business to come before the subcommittee, the subcommittee will stand adjourned until Thursday, September 23, at 10 o'clock.

(Whereupon, the subcommittee recessed, to reconvene at 10 a.m., September 23, 1971.)

MARINE MAMMALS

THURSDAY, SEPTEMBER 23, 1971

House of Representatives,
Committee on Merchant Marine and Fisheries,
Subcommittee on Fisheries and Wildlife Conservation,
Washington D.C.

The subcommittee met at 10 a.m., in room 1334, Longworth Office Building, Hon. John D. Dingell, chairman.

Mr. Lennon (presiding). Today the subcommittee holds its fourth day of hearings on legislation to protect marine mammals. We have already heard from a wide variety of witnesses, and the hearings today will extent even further the scope of the testimony on this important legislation.

The hearings today will almost certainly continue this afternoon, and I want to say to the other witnesses here that they will be heard today, or possibly tomorrow morning, if it becomes necessary to continue these hearings in order to see that everyone is heard.

Mr. Dingell has asked me to apologize to you all for his inability to be here this morning. There is an important matter coming before another committee with which he is involved, and he did not think that he could fail to be there. He will be here this afternoon.

The first witnesses this morning are scientists who are considered to be among this country's foremost experts on marine mammals. Drs. Ray and Norris and Mr. Schevill have kindly agreed to act as a panel, presenting a statement for the committee and then answering any questions that the committee members may have on the joint statement or on any of the matters raised by witnesses earlier in these proceedings.

Doctors, if you will come forward to the witness stand. I am not advised at this point in time whether there is a prepared statement that you gentlemen have.

I am now advised that you do have a prepared statement.

Would you, gentlemen, for the record, please identify yourselves and give such statement as you choose.

STATEMENT OF DR. G. CARLETON RAY, PROGRAM DIRECTOR, WILLIAM E. SCHEVILL, AND DR. KENNETH S. NORRIS, MARINE MAMMAL COUNCIL

Dr. Ray. Mr. Chairman, members of the Subcommittee on Fisheries and Wildlife Conservation, we are before you today to aid in the design of strong, constructive legislation on marine mammals. Most of our comment will be directed toward H.R. 10420 which we largely endorse. Rather than give you a detailed critique, we will present a short statement which outlines matters of principle; then we would be pleased to answer any specific questions you might have.

I am Carleton Ray. I have with me two associates on the Marine Mammal Council. To aid you in directing your questions, I will outline our areas of expertise.

Mr. William E. Schevill has studied the ecology and acoustics of marine mammals for about 30 years. His field experience encompasses both the Northern and Southern Hemispheres, including Antarctic waters. His primary concern has been the Cetacea (whales, dolphins, and porpoises). He has long been associated with both Harvard University and Woods Hole Oceanographic Institution, and he was an adviser to the U.S. Commissioner at the 1971 meetings of the International Whaling Commission.

Dr. Kenneth S. Norris is a professor at the University of California (Los Angeles) and chief scientist, Marine Mammal Division of the Oceanic Institute in Hawaii. He was formerly curator at the Marineland of the Pacific, and his research interests primarily concern Cetacea of tropical and temperate waters. In addition, he has been concerned with the California sea otter problem.

I was formerly curator of the New York Aquarium and am now associate professor at the Johns Hopkins University. I was also an adviser to the U.S. Commissioner at the IWC meetings last June. My research interests primarily concern polar (Arctic and Antarctic) Pinnipedia (seals, sea lions, and walruses). Another principal interest of mine is marine conservation, and a paper on this subject was introduced into the record of the hearings on ocean dumping by this committee a few months ago.

Together, we represent both our particular fields of science and the marine mammal program of the U.S. international biological program. The IBP theme is "Productivity and Human Welfare" and we recognize the necessity to consider marine mammals as an international resource of both esthetic and economic value. We also recognize the urgency to increase the research effort on marine mammals on an international level and we urge that, from both the biological and humanitarian points of view, marine mammals must be managed—not by turning back the clock toward either protectionism or overexploitation, but by moving forward to an ecological viewpoint which considers both marine mammals and man within ecosystems.

The major concerns of the bill, H.R. 10420, are: (1) determining the status of marine mammal populations; (2) assuring proper management of marine mammals based on ecological considerations; (3) providing for marine mammal research and its adequate funding; (4) establishing jurisdiction among Federal and State agencies; (5) promoting greater international cooperation in marine mammal research, conservation, and management; and (6) establishing a marine mammal commission and its scientific advisory committee.

Before considering these issues, we must observe that the overwhelming thrust of our civilization is still toward the overexploitation of resources. Such overexploitation has led to the rise of the environmental consciousness felt so widely today. One form of this has been protectionism, so easy for the uncritical to endorse in principle, yet so narrow a method. The result is a confrontation between those who believe that animals are to be exploited or managed and those who believe that animals must be completely protected. Both extremes are wrong. Neither the extreme exploitative nor the protectionism point of view give sufficient attention to the interdependency between animals and their environment. What is needed is a system of flexible management, based upon a continual scientific reappraisal of the ecological health of populations.

Now we turn briefly to the issues.

1. DETERMINING THE STATUS OF MARINE MAMMAL POPULATIONS

The marine mammals are the Cetacea (whales, dolphins, and porpoises), the Pinnipedia (seals, sea lions, and walruses), the Sirenia (dugongs and manatees), the sea otter (a member of the weasel family, Mustelidae), and the polar bear (which is considered a marine mammal only because of its sea-ice habitat, not because of any anatomical adaptation to live in the sea). This is a diverse group, for which no sweeping statements can be made in terms of abundance, habits, or conservation. Together, they represent perhaps the least-known of the large mammals. As they represent several hundred thousand tons annual production, they assume vital resource importance. It is not true that most are in danger of extinction; two marine mammals have become extinct at the hand of man, some are now seriously depleted, and some are in good condition. Many are already protected by international treaty, to the limits of the power of international law. Notably excepted are the small Cetacea. One, the fur seal of the North Pacific, is being managed in exemplary fashion; in fact, the treaty covering the fur seal represents exactly what is needed in international law of the high seas, namely, limitation of entry into a "fishery." A total moratorium on the take of all marine mammals cannot serve such a diverse group equally. It becomes a meaningless gesture for those already protected and, conversely, a threat to development of international cooperation for species which might be protected on the fur seal model. It abrogates the responsibility of those who know the field of wildlife management best. In our judgment, such an action is simplistic and negative, only stating what we will not do and neglecting to consider what we must do in the future.

2. ASSURING PROPER MANAGEMENT OF MARINE MAMMALS BASED ON ECOLOGICAL CONSIDERATIONS

Marine mammals are used in a great variety of ways: Meat, oil, meal, personal adornment, for trophies, porpoise teeth for money in the Solomons, for esthetic purposes, for public display, in the trinket and souvenir trade, for native arts and crafts, for pharmaceuticals and for research.

Obviously, the diversity of uses and the diversity of species make management on a species-by-species, stock-by-stock basis mandatory.

The concept of "sustainable yield" is important and it is clear that such a yield must not be calculated merely in economic terms, as has been the habit of exploitative groups. It is also clear that what is "optimum" from the point of view of economic yield may not be optimum in terms of a species population in its environment. A part of the difficulty in management practice is that it has been in terms of human needs, rather than in terms of the needs of ecological balance within a natural ecosystem.

In their testimony before this subcommittee, the Committee on Humane Legislation stands against management, as well as against harassment and kill.

First, marine mammals are truly international and abdication of management by the United States in the form of a total moratorium only leaves the field open to exploitation of other nations. Since our country is one of the world's leaders in developing scientific management methods, the result is almost surely bound to be bad.

Second, no ecosystem on earth has escaped the hand of man. We have already intervened, and often deeply, in systems involving marine mammals. Therefore, we must manage, if only to assume that this intervention is kept in control.

Third, whether we like it or not, humans have intervened in the natural world to such an extent that there is no backing away from management on a global scale, or else grave consequences will surely beset us.

The question is not "Shall we manage?" but "How can we manage in such a way that natural ecosystems are not disrupted?" Marine mammal populations are no exception to this case. Even if no kill at all is imposed on the population, we are already at the time when we must monitor it to determine the effects of other human activities upon it.

3. PROVIDING FOR MARINE MAMMAL RESEARCH AND ITS ADEQUATE FUNDING

Management, including protection which is one tool of management, must deal with populations (interbreeding units), rather than with species. For instance, the blue whale as a species is depleted; and some populations are in rather good shape, yet most are desperately close to extinction.

A basic conservation practice is the maintenance of populations at a level which permits a maximum sustainable yield. This is not a matter that can be legislated, but is possible only through large-scale continuing research on an international basis, with emphasis on aspects of biology of the species, distribution, ecology, ethology and population dynamics. The definition of stocks, their optimal population levels wherein mortality is minimal and productivity is high, is a difficult matter. It will demand research on the highest multidisciplinary level and will require periodic review of permits and regulations.

To these ends, the lack of ship support for marine mammal work is critical. Recent studies on the gray whale in the United States are one example. Scientists were restricted in their specimen collecting efforts to a whaling ship based in central California which could not collect animals either on the Mexican breeding grounds or the Berin-Chukchi Seas feeding grounds. As a result, data were obtained only during migration. One point is that there are few present alternatives to tying research to commercial operations. At sea facilities for research are minimal.

Marine mammals are important for more than just their resource value. Their accumulation of heavy metals and pesticides is now well known and their utility in future programs on environmental monitoring is obvious. Porpoises are also used by the high seas tuna fleet to locate fish.

There has been much mention of scientific data in these hearings. The truth is that we are sadly lacking in such data. We know of large whales mostly as carcasses. New research is important. It must be imaginative, but it will be expensive. The funds mentioned in H.R. 10420 are not adequate. But such funds in support of research should not be restricted in support of any one agency. It is vital that the Office of Naval Research, the National Oceanic and Atmospheric Administration, and university scientists all be supported at levels in accord with national need. The latter group, in particular—the university scientists—have not received the support needed, yet it is they who have done the broadest work on the biology of marine mammals. Government bureaus are, by design, restricted in their missions.

4. ESTABLISHING JURISDICTION AMONG FEDERAL AND STATE AGENCIES

Our concern is not so much with who has jurisdiction, but: (1) that any one agency exercise control in legislation; (2) that management and enforcement are strengthened on a local level, and (3) that the agency have power to influence international negotiations. It is surely obvious that a Federal agency should be designated. At present, the Departments of Commerce and the Interior have conflicting powers. We look toward the creation of a Department of Natural Resources, but this will be little more than an empty reorganization so long as some marine mammals are considered wildlife and others, fisheries, continuing the present irrational and nonecological division. Thus, we recommend that plans for a Department of Natural Resources be enacted, but that the present division between commercial activities and wildlife activities be discontinued.

With regard to States' rights, it would seem desirable to establish Federal policy and regulations to which all States would adhere. The only marine mammals that may be considered resident within single States' territorial waters are the manatees and sea otters. The most severe States' limitations are with regard to international agreement and the narrow inshore waters in their jurisdiction.

We defer to the lawyers to solve this difficult but important issue. There is simply no sense in conflict here, and it must be Federal policy that we conserve and manage marine mammals, at least on a national level.

5. PROMOTING GREATER INTERNATIONAL COOPERATION IN MARINE MAMMAL RESEARCH, CONSERVATION AND MANAGEMENT

Those cognizant with the 1958 Geneva Convention recognize the conflict between marine law and ecology. The regime of *res communis* and maintenance of an open fishery severely restrict efforts to conserve the resources of the high seas. The treatment, in law, of marine mammals, at least large whales and the fur seal, represents significant legal exception in spite of admitted shortcomings in other regards.

It is essential, however, that we seek to advance international cooperation, both on a species and a regional level. That is, we must seek to include all marine mammals under international treaty and, further, to devise regional treaties with regard to the use of certain seas as a whole.

The Department of State must be more forceably directed than H.R. 10420 states in developing broad international agreements. The enactment of a moratorium would severely limit such negotiations, whereas regional management plans might prove widely acceptable. Despite assertions to the contrary, the State Department has not pursued these matters with sufficient vigor.

Prof. A. G. Bannikov, a Russian, at a meeting of the International Union on the Conservation of Nature and Natural in January 1968, said:

> It is high time to raise a question about the protection of the Arctic ecosystem as a whole, as a specific complex which functions in extreme conditions and can be easily destroyed by man. (ICUN Bull. 2(7):54, April–June 1968.)

We agree with this statement.

6. ESTABLISHING A MARINE MAMMAL COMMISSION AND ITS SCIENTIFIC ADVISORY COMMITTEE

Almost every aspect of this bill calls for decisionmaking on a high level. Because flexible management requires frequent scientific updating, a Scientific Advisory Committee is needed. Members of the Marine Mammal Commission should serve limited terms and should consult frequently with all agencies, Federal and State, which manage marine mammals. How this Commission should report its results and findings is not spelled out in sufficient detail, however. The Commission will obviously have access to proprietary information which should not be a matter of public scrutiny. Candid discussions, the cooperation of industry, and certain international negotiations are not matters for lay examination.

Yet the Commission and its work must be highly visible. In short, it will succeed or fail, depending upon the trust we place in it and upon the calibre of the appointees.

Reasons for the National Wildlife Federation's opposition to a Scientific Advisory Committee are obscure to us. It is clear, however, that the committee should be composed of qualified marine mammalogists, marine ecologists, and population biologists. We strongly endorse the idea of such a committee, which would be in a position to bring expertise into the deliberations. The idea that this committee's recommendations be made public is laudatory.

This concludes our general remarks. Most of the points we make are considered favorably within H.R. 10420. We are aware that many changes have already been suggested to you, both in wording and in philosophy. We will not consider these in detail, but there are some matters which deserve specific comment.

First, it is important that the taking of marine mammals incident to commercial fishing operations be regulated. We feel that all individuals or groups taking marine mammals should be brought under permit. While testimony from the American Tunaboat Association has indicated that "U.S. fishermen and the porpoise have been learning to live together," we are all aware that the mortality of propoises in tuna nets has been by the hundreds of thousands. Assertions that the problem is on the way to solution are not yet backed by sufficient fact. Industry collaboration with the National Oceanic and Atmospheric Administration must be visibly increased, and this problem must be solved. We urge that the burden of proof be placed upon the industry for solution of this problem.

Second, there is the urgent problem of marine mammals in captivity, and generally, we support the testimony of Robert Horstman on this matter. We urge that national policy be established to bring private ownership of marine mammals under permit. The same should be true of zoos and oceanaria and their suppliers. There are not adequate guidelines for the capture and husbandry of these delicate creatures. We assume that one task for the Commission's Scientific Advisory Committee would be to aid in development of such guidelines.

Third, "native" rights must be protected, but this aspect is not clear in the bill. In Alaska, "native" rights are not along ethnic or racial lines, but have been established for subsistence hunters, regardless of race. Skin and ivory hunters and the Eskimo ivory-carving industry, for instance, must be considered and this is currently done by the State of Alaska. Neverthless, it is by no means clear that the level of hunt is below, or will remain below, the annual increment of some populations. Walrus, bowhead whales, and polar bears, among others, are hunted under "native" rights. The level of this hunt bears careful watching. Should it become excessive, restrictive regulations will prove necessary. Since these mammals are inhabitants of the open ocean and are international in nature, Federal policy is needed. We reemphasize, however, that such policy must be made in close cooperation with that State and that management on a local level be strengthened.

Fourth, the fur seal is a special case. We are not concerned with the question of why these animals are killed. That is a social and moral decision. In scientific terms, the method of kill by clubbing and exsanguination is quick and humane. Also, the level of kill leads to a healthy, productive population. In terms of international law, we see this fishery as the best example of conservation of a large mammal anywhere. In "humanitarian" terms, it is not an easy matter to decide whether a direct kill to regulate a population below carrying capacity is more or less "humane" than a population let go to maximum abundance with the resultant high mortality of pups on the rookery.

Fifth, the idea of sanctuaries bears urgent consideration. Testimony by Mr. Vandevere on the California sea otter and Mr. Hartmann on the Florida manatee mentioned the threats of environmental pollution and collision with boats. Perhaps sanctuaries of a more complete or restrictive nature than exist today might assist in management.

Last, we would like to enter into the record of these hearings the reports of the Working Groups of the International Conference on the Biology of Whales, held in June of this year. These documents represent the thinking of biologists from many nations who have dealt with whales and whaling and who have made great efforts in conservation against, at times, nearly overwhelming odds. At last, their rational viewpoint appears to be having appreciable effect and we may yet see the substantial rebuilding of populations. It is clear that a moratorium which protects them and then forgets them will not protect and may actually endanger the whales.

In conclusion, we are in a real sense hoist on the petard of our own humanness in the "exploiter" versus the "conserver" confrontation.

Judgments on "humane" methods as well as management for human needs are both homocentric. What we ask is a different view—that we see and study populations within systems and use, as well as appreciate and enjoy them, on that basis.

That concludes our formal statement, Mr. Lennon.

Mr. LENNON. Thank you, doctor.

The gentleman from Washington, Mr. Pelly.

Mr. PELLY. Thank you. I think my question might be directed to Mr. Schevill because it has to do with porpoises.

On page 7 of your statement you indicated that you are all aware that the mortality of porpoises from tuna nets has been in the hundreds of thousands.

Mr. Schevill, do we have any accurate estimate as to the number that have been lost in the nets and whether this is diminishing the population, the porpoise population, to any significant degree?

Mr. SCHEVILL. Excuse me, sir; I would like to pass this to Dr. Norris because he has been in touch with members of that fishery and people there.

I can just confirm that the porpoises are no longer as abundant as they used to be.

Dr. NORRIS. The estimates of numbers have been extremely hard to make, that is, the level of kill due to the tuna fishing has been obscured by the fisherman prior to its being released in the public press within the last month.

However the best estimates are on the order of 250,000 to 400,000 animals per year killed in the nets in the eastern tropical Pacific.

The report is that the present numbers are indeed greatly reduced in the schools and the schools are smaller and much harder to approach now than they were at the initiation of the firstseine fishery.

Mr. PELLY. Well then, I take it you are a little skeptical about the love affair between the fishermen and the porpoises?

Dr. NORRIS. That was the tuna fisherman's statement, not mine, I assure you. I think that is a very rocky love affair at best.

Mr. PELLY. Well, I take it you have not seen a fisherman jump into the water to free a porpoise from the nets.

Dr. NORRIS. I think that it would be unfair to the tuna fishermen to say that they do not concern themselves with this problem and I think, indeed, they do go into the water and attempt to release the porpoises, but the problem is that the animals dive to the bottom and get entangled in the net where no one can help them.

Mr. PELLY. Are you encouraged by the development of a new net with a smaller mesh in the upper part of it so that the porpoises do not get caught in the net and can escape?

Dr. NORRIS. I am encouraged, but not convinced.

The evidence, as I understand it at the moment, is that the proportion of animals in the net to those killed has remained approximately the same with the new net as it was before, though I also understand that the data are extremely slim.

I think that this kind of a development of change in the net may well be the solution to the problem, but I think it needs much more investigation.

Mr. PELLY. Well, I think that we are concerned with an economic aspect of the tuna fishery which is certainly important.

I gathered from the testimony of the representatives of the fishermen's association that they felt this might well be a solution.

I wonder, pending any verification and testing, whether or not there could be some provision in this bill which would provide a moratorium to give the tuna fisheries association an opportunity to develop what they indicate is certainly a solution.

Dr. NORRIS. I am not quite sure I understand what you mean by a moratorium, Mr. Pelly.

Mr. PELLY. I was trying to figure out some way to recognize the obvious desirability of the solution in this case and to provide a means of freeing the porpoises and at the same time not doing away with an important industry that provides necessary food for our growing population throughout the world.

Dr. NORRIS. Certainly, the solution to this problem is utterly mandatory as far as I am concerned.

The need has been for the tuna industry to be more open and to be more cooperative with the scientists who have been attempting to solve this problem for some time.

They should also bend their own efforts toward a solution, which they have begun to do.

I think what we need is an acceleration of this effort as quickly as possible.

Mr. PELLY. Well, all I was trying to figure out was some way of not lowering the boom on the tuna fishing fleet and at the same time providing for the protection of the porpoises and that I would say could only be done by further research and some adequate plan to find out whether the new nets actually work out the way the captain has testified that it is working out.

Dr. NORRIS. Yes.

Mr. PELLY. Are you familiar with the one statement by Captain Medina?

Dr. NORRIS. Yes; the statistical evidence, however, apparently does not bear out his rosy conclusions.

Mr. PELLY. Well, one net. That is the only one we know about. Are they using them extensively in the fleet?

Dr. NORRIS. The modified net?

Mr. PELLY. Yes.

Dr. NORRIS. I frankly do not know for sure; I don't think so.

Mr. PELLY. Well, I hope you will find out, because it seems to be the only solution that has been made.

Dr. NORRIS. No; there have been a series of other tests run at the Scripps Institution of Oceanography and the Oceanic Institute in Hawaii involving attempts to make nets with portions of them acoustically transparent so that the porpoises would think there was a place to escape when they scan them with their sonar equipment, and cork lines which could be lowered by air pressure, and this sort of thing.

There has been a lot of work over a 2-year period but under rather difficult circumstances and a minimum of interaction between the scientists and the tuna fleet.

Mr. PELLY. Without taking too much time, I need a little definition on a couple of statements in your prepared statement that you made.

One, I do not quite know what you mean when you refer to the limitation of entry into a fishery on page 3, this having to do with the fur seal being managed and the international treaty.

What exactly do you mean by limitation of entry into a fishery?

Dr. RAY. That is the conflict as legally defined between the rights of claim under which mineral exploitation might be developed or res communis under international law by which everyone owns a resource.

The Fishery Convention of the 1958 Geneva Convention is perhaps the knottiest of all the four conventions. It is based on the fact that you cannot claim a moving resource. We may know how much there is of the resource, but as long as it is everybody's property, then anybody can fish—it is an open fishery and this forces a fisherman to get there with the least and try to get the most profit.

It keeps its capital investment low and the margin of profit is also low in many cases.

The limitation of fishery concept would be that you cut up this fishery, if you are going to fish at all, like a piece of pie and you make an adjustment saying now let's have Russia, Japan, Canada, and the United States share the productivity. We set an overall quantity of fur seals to be killed and cut the pie up. This becomes biologically very rational; nobody else can enter that fishery and jeopardize such a fishery.

It also allows you to be more economical in your efforts. I think that is one of the major difficulties of open ocean fisheries.

For instance, the haddock case is well known in the Northeast and is probably well known to you also. It is a classic case of open fishery and the haddock has been ruined by it.

Mr. PELLY. When I said the word "fishery," I did not associate it with seals.

Dr. RAY. Well, I do not either, sir.

I try to call it a whalery. How about mammalry?

Mr. PELLY. You have explained what caused my confusion, and I think what you are saying probably is that after the 1973 convention on the law of the sea, this is a matter that would be well discussed by the various nations.

Dr. RAY. I think at the plenipotentiary sessions it is going to be discussed.

I may express my feeling that this is so knotty that I feel that the very future of man would be solved if we could solve this one because it represents the extremely difficult problem of the rights of the high seas.

If we can ever get this viewpoint across of considering resources and limiting entry, we will at least be on the road to solving some of the very difficult problems of ocean exploitation.

Mr. PELLY. We have a real problem out in the Pacific Northwest where our Pacific salmon move out into the high seas. We have a treaty with Japan in which they agreed to abstain from fishing this species east of a certain line and then we have South Korea, who is not a signatory of the treaty comes in and takes salmon. Japan is not going to abide by her abstention line if someone else is going to cut in front of her and start taking those fish.

Dr. RAY. That is right. This is a classical example and one reason a moratorium-type of approach is so difficult.

As you know, Mr. Pelly, you cannot control another nation that is not a party.

Mr. PELLY. Well, we are having now some legislation that comes up next Monday to try to protect the North Atlantic salmon where all nations except three have supported a ban on taking fish on the high seas by nets and yet, any nation that does not agree to go along can go ahead and do it and Denmark is depleting the stocks of fish.

We are coming up with a bill which we think might be a solution and you might watch for it. It is a broader bill than just North Atlantic salmon.

This bill provides that, where a nation does not conform to an international agreement, the President could, in his discretion, cut off the imports of fish products from the nation in order to bring pressure.

In the meantime, it is in conformity with the General Agreement on Tariffs and Trade. That is permitted, I understand.

Well, one more quick question that needs an explanation. On page 3 also, you say obviously the diversity of uses and the diversity of species make management on a species-by-species, stock-by-stock basis mandatory.

I take it you mean stock-by-stock. Is that something different than species-by-species?

Dr. RAY. Very definitely, animals exist in populations and stock is the word for population.

Mr. PELLY. Right. A layman sometimes needs a little help.

Dr. RAY. I would rather call them populations, too. Stock smacks of other things.

Mr. PELLY. One final question.

On page 6 there seems to be a little contradiction. You say the Commission will obviously have access to proprietary information which should not be a matter of public scrutiny, and you go on to say this work must be highly visible.

I do not quite know why the public should be deprived of the information that is developed.

Dr. RAY. Well, I have wrestled with this myself and I think all of us have.

For instance, in some of the work I have done in East Africa on conservation or with Eskimos, if you are going to be successful, you are going to enter into a rather personal relationship with a person and he will give the information that he says is confidential. He may write you a letter about this when you go home.

I worry very much about having a open file of my mail. I do not want everybody to know who signs "Love" at the end of my letters, you know. It is just one of those things.

On the other hand, the conclusions I may reach for instance, must be open for public scrutiny as are the conclusions of every university professor.

I think university professors are used to this sort of thing. They have to put before their peers everything they find out.

I agree it is a very difficult conflict to solve. Just where you do draw the line on proprietary information?

Mr. PELLY. The Pentagon papers would be an example.

Dr. RAY. I think it is a very hairy example. The oil company geologists is another one that Mr. Schevill has just mentioned to me.

The tuna fleet is another one and if you are going to get chummy with the tuna fisherman he may tell you things, depending on how much confidence he has in you that his information will not be released.

Mr. Pelly. I am sure every researcher is something like a newspaper reporter. He wants to protect the sources of his information and nobody will quarrel with that, but I think in general the impression should not get out that you want to cover up information, because the public's opinion is the thing that is going to help you accomplish your objectives.

Dr. Ray. We do not mean to set up an exclusive hierarchy at all.

Mr. Pelly. I think you can classify your mail.

Well, thank you very much for some very fine testimony. Thank you, Mr. Chairman.

Mr. Lennon. The gentleman from Virginia, Mr. Downing.

Mr. Downing. Thank you, Mr. Chairman.

Getting back to the porpoise for a minute, does that animal die in the net or when he is brought up into the boat? How does his death come about?

Dr. Norris. Most of the deaths are due to drowning when the animals dive into the net and become entangled below the surface and the porpoises drown after taking a lungful of water. They drown in a matter of a very few seconds.

Some get over the corkline of the net and in their confusion, because their school has been torn apart by the purse seine net operation, they are caught by sharks so that there is some mortality outside the net, even for the animals that do escape.

There are occasional animals that get killed on deck, but most of it is by drowning.

Mr. Downing. In your statement you say something which is reassuring to me at least. You say it is not true that most are in danger of extinction; two marine mammals have become extinct at the hand of man, some are now seriously depleted, and some are in good condition.

Are most of our resources in a safe status? Do I draw that conclusion from your statement?

Dr. Norris. Safe from extinction, yes, badly depleted in many cases, also yes.

Many local stocks or populations are on the verge of extinction or virtually wiped out, also yes. So a species may survive like the blue whale, for example, and yet, a local population may essentially be gone and the species be surviving elsewhere.

It is important that we preserve not only the species but the population structure as well, since this part of the way animals have evolved in the world and have managed to meet the changes in the environment that assail it.

Mr. Downing. What are the two marine mammals you refer to in your statement that have become extinct?

Dr. Norris. The Steller's sea cow and the Caribbean monk seal.

Mr. Downing. What mammals are on the critical list now that might disappear?

Mr. Schevill. You are pressing me for some very fuzzy figures which are all we have on present estimates of some of these populations.

Before I give you some samples, one example will show you how badly we need more research. As Dr. Norris said, the business of actually extinguishing a species has been done as far as we know of record, only these two times in the case of the Steller's sea cow where it was done up in the Arctic in a very few years. This was a very limited population and the northern sealers just cleaned them out.

When you get a population reduced too small you have problems like how does boy meet girl and actually this sort of thing, how do things go on when they are scattered throughout the oceans?

Some of our stocks of various species are reduced very much.

The blue whale, which you hear so much about, these are figures culled from presentations at our international conference last June, one of the men reported on the South Atlantic population of blue whales. This is all in high latitudes, south of 50°, probably. But he thinks that perhaps there are 200 blue whales and another gives the number of 130.

In another authority reporting on the entire Antarctic, let's say south of latitude 40°, thinks there are 4,000 blue whales.

In the Northwest Atlantic our authority thinks there are a very few hundred. This means off New England and off of Canada. People see them all right, but one at a time, two at a time, not very many.

Now, this is the sort of thing that you have. To give a background we ought to know how many there were before the intensive whaling began, and this we cannot answer because people did not start counting them, of course, then.

The British Discovery Committee which has worked on the Antarctic population a great deal gave a figure about 6 years ago; perhaps 400,000 whales in the Antarctic. This was blue, fin, humpback, all mixed together.

The current estimate for this population in the Antarctic is about 80,000. Eighty thousand out of say 300,000 to 400,000. This is an approximate measure of the depletion.

The humpback whale, for example, is all over the world. It is now protected by the International Whaling Commission and the local populations are measurable in 200, 500, 600, that kind of thing; a population being the ones you find off western Australia or New Zealand. The North Atlantic they may be a little more abundant because people have not been fishing.

Mr. DOWNING. Do you have a count on porpoises?

Mr. SCHEVILL. Certainly not. Those numbers are infinitely greater, of course, as you heard from Dr. Norris' testimony, several hundred thousand just in this one patch of the eastern tropical Pacific.

Dr. NORRIS. They are the ones that were killed, that is not the populaton.

Mr. SCHEVILL. Killed. But we really do not know what the populations are. We know sometimes at sea you will see porpoises in such a dense crowd that you cannot see to the far side of them.

Mr. DOWNING. Well, you do not know whether the porpoise is becoming extinct?

Mr. SCHEVILL. There are about 80-odd kinds of porpoises anyhow and in the case of the tuna fishery we are speaking at most about three species, I guess.

Mr. Downing. Thank you. Very interesting.

Mr. Lennon. The gentleman from California, Mr. Anderson?

Mr. Anderson. Thank you, Mr. Chairman.

First, I want to congratulate Dr. Ray and Mr. Schevill and Dr. Norris on a very excellent statement.

I want to thank you for your kind remarks on behalf of H.R. 10420.

I would like to explore again some of the questions that have just been raised and I would like to ask what is the total number of porpoises. I have been trying to get a figure from someone and no one will even guess. You said it was "infinitely greater," but that does not tell how many.

I asked someone the other day, "are we talking in terms of 5 million, 10 million"?

Cannot anyone give us a guess as to whether we are talking about 1 million or 20 million porpoises? We can, in a sense, consider the 100,000 or 200,000 that are killed in a different perspective if we are. If it is less than 1 million, then we are in trouble.

Mr. Schevill. This again comes down to the stock business that we were talking about.

In our American tuna fishery it is the eastern tropical Pacific stocks. The same sort of porpoise can be found all around the world in comparable latitudes also harvested by tuna fishermen of other nations.

Anyone care to name a number?

Dr. Norris. Well, I just want to reinforce Mr. Schevill's statement. We are only just barely beginning to know where these porpoises exist and where these species limits are.

We know next to nothing about their movements and this goes for the entire world. There really is no population or species of porpoises for which we can give you a decent figure. There simply has not been the work done on this to give you a figure.

Mr. Schevill. It is hard to do, among other things.

Dr. Norris. It is a difficult problem.

Mr. Anderson. My next question is to you, Dr. Norris.

We have heard from the representatives of the tuna fishermen. I wanted to ask them a question, but since I did not, I would like to ask you. It concerns the theory behind the Medina net.

Now, the fishermen believe it is going to work by putting the 2-inch Medina net on the bottom and the 4-inch netting around the sides. That is based on the undertsanding that the porpoise dives down and would be forced to swim up again and hopefully out of the net.

Now I hear others say that this is not the way to do it, that this is not going to do any good and I do not want to be sold on a program that is not going to give us the answer.

Could you tell us what you know about the effect of having a net that would have the 2-inch netting on the bottom and the 4-inch netting on the side?

Dr. Norris. I can give you a notion of what I think these mesh sizes will do. I can tell you nothing about the Medina net, itself. I have no information on that except just a few sentences that have been told to me in the last 2 days, so I really do not know too much about it.

The notion is that these animals, if the mesh is small enough, cannot stick their snouts through the mesh and become entangled. They will bounce off, in other words, so it is a matter of putting that small enough mesh to keep the animal from becoming entangled wherever he he does become entangled, and the porpoises, as I understand it (I have not been on a cruise with the tuna fishermen), typically dive when they become frightened and presumably go deep into the net and become entangled deep below the surface.

Mr. ANDERSON. What happens to those that become entangled on the sides where the netting is in 4-inch squares?

Dr. NORRIS. I imagine they drown. The question is not will the present configuration work, but can you build a net in which the mesh repels porposise .The problem is to place the small mesh in a proper place. This, I think, is hopeful.

Mr. ANDERSON. You see, this is also where the importance of the number of porpoises is apparent. If we could take a certain number of porpoises in a proportion to the total number of porpoises without endangering them, that is one answer. If no one can tell us how many porpoises there are in our oceans, it is very difficult.

Dr. NORRIS. There has not been an opportunity to find out, really. The governmental program, while working in porpoises, is very small and lodged in very few individuals. They are biologists and without really much in the way of resources to see, to look at the animals or with the funds to develop the technology in order to make reasonable counts. We need these things.

Mr. SCHEVILL. I asked Dr. Norris to comment on one other thing in this connection.

I have heard repeatedly that on these fishing grounds the porpoises are no longer as numerous. This does not give you numbers, but it seems to me this does give us a hint that the mortality is excessive if the fishermen are running out of index porpoises to spot the schools of tuna.

Can you comment on that, Doctor Norris?

Dr. NORRIS. I have heard the same story as you have and that is that the school size is reducing and that they are very much more difficult to approach and to find.

Mr. SCHEVILL. Kind of sounds like overfishing.

Dr. RAY. The comment I would like to make is this. I think we mention in our statement how few data we have to go on.

I do not think anyone who has not tried it truthfully can appreciate how difficult it is to count animals. Suppose we count those animals that are easiest to count, namely, the fur seals that come on the rookeries.

How do we count them? We count the chiefs and multiply to get the indians. The figures are pretty good, though, but when you get an animal in the open sea that only appears as a small breath of steam you are really up against a terrific problem.

We mentioned the fact that there are not the facilities for this research. Ordinary oceanographic vessels will not work well.

Recently, there have been developed a number of ideas, one of which has been successful on the West Coast where I understand you are from.

Dr. RAY. In southern California they have some telemetry studies going on on your local porpoises, tagging with radio beacons to try to find out where the animals go to identify stocks.

This sort of thing is very difficult. It is very expensive, but it is a beginning in the kind of research we have to do to follow animals in the open ocean.

This is a tough problem you are asking about.

Mr. Anderson. I have a question on another subject. On page 8, you talk about sanctuaries for the California sea otter and the thought that perhaps a more complete and restrictive regulation than exists today might assist in the management.

Would you develop that a little bit?

I am thinking now of the sanctuary of California where there exist some of the finest recreational boating and fishing areas that there are anywhere. Yet the concern we have is what is happening as a result of boating accidents and pollution.

Would you develop your idea of how you would limit sanctuaries only to the otter?

Dr. Norris. Let me first say something about the otter sanctuaries. That is a thing with which I have had some contact and then I will turn the question of sanctuaries in general over to Dr. Ray who has some broader thoughts.

In my estimation the problem of the California sea otter and the already existing sanctuary along the Big Sur coast south of Monterey is a very difficult one simply because the animals refuse to stay in the designated area that has been assigned by man for them to live in.

They do not stay on the reservation. The reason they are not staying on the reservation is that to the south of them the table is set for them with abalone and sea urchins and other things which they like to eat.

These organisms are on the tops of the rocks whereas in the sanctuary itself they have grazed these articles of food down to the point that they live in the crevices and only occasionally come up on the tops of the rocks, so the size of abalone within the refuge has been reduced and sea urchins have become quite small.

The same thing has happened in the Aleutians. The movement outside of the sanctuary is what I would do if I were a sea otter; that is, move into an area where there is more food.

This brings them into a very sharp conflict with the abalone fishermen as you know.

It is a conflict for which I cannot see a very quick and easy solution.

Moving the otters back into their refuge only faces them once again with the food problem.

I think what you are really faced with is there is a capacity of habitat, which has perhaps reached its maximum within the sanctuary and one cannot expect any more otters to exist there even if the number we have now can survive there.

Mr. Anderson. Then you do not think the reason it is so small is because of the boating and pollution in the sanctuary itself, but what happens to the otters outside the sanctuary?

Dr. Norris. I think, to be honest about it, there is a confrontation with the abalone fishermen and I am quite sure the abalone fishermen take their toll on the otters who are in the area where their take is carried out.

Dr. Ray. The broader aspects of the sanctuary that Dr. Norris spoke of are a couple of things.

First, I was very impressed and rather moved by Dr. Hartmann's previous testimony about the manatee in the Crystal River.

Here, you have a pretty specific case where two things happen to the manatee. You cannot protect the manatee by protecting the manatee alone. You must protect its drainage so that pesticides and herbicides do not knock off the food of the manatee.

The second thing is the Crystal River he showed us some slides of the manatees cut up by boat propellers.

In this particular case we simply must eliminate power boats from that area, no matter how fast they go. You should not run power boats around manatees because you cannot see them and you are going to cut them up.

Now, that is a specific case where you might eliminate one particular activity that is in conflict directly with a valuable animal.

Broadly speaking, such a thing as the sanctuaries in title III of the ocean dumping bill really speaks to a matter that is environmental.

Let us take the Bering Sea which I know fairly well. As an example, in the Bering Sea we have the fur seal which is at the same population as it was at about 1930. At that time it was increasing at 8 percent per year. It is not now increasing at 8 percent per year and this is not because of the commercial take. There is some other factor apparently that is holding them down.

There are a number of ways you can tell this, by mortality and reproductive status of the females and so forth.

There are two things we might guess that are affecting the fur seal. One is the level of pollution of heavy metals and pesticides in the Bering Sea which may affect the reproduction potential of males or females.

We know that DDT affects reproductive behavior, physiological reproductivity of animals.

Second, out there is now a very large fishery in the Bering Sea which competes directly with the fur seal for its food.

Now, there is only a certain amount of food. Man is going to take it or the fur seal is going to take it. In this case, it seems to me it is patently obvious that we must have a Bering Sea treaty for salmon, herring, crabs, and for fur seals all together.

We have to consider these things as part of a system and this is very definitely a possibility.

If the State Department would pursue it, they might get some place. This would be management of the Bering Sea as a whole where the idea of sanctuary comes in because here we have the largest marine mammal populations on earth, and one of the largest fishery population on earth.

There are various ways we can jeopardize this productivity. One of the best ways it seems to me is the development of oil in an ice-covered sea. Ice, believe me, can move ice breakers and oil rigs and to have an oil spill, for instance, in a sea like this would be so incredibly wrong, far more serious in an ice-covered sea for a number of reasons than it would be in San Francisco Bay.

Should we jeopardize this most productive area on earth for marine mammals and other fisheries to develop oil?

I would at present take the position that we must have oil development eliminated from the Bering Sea under present development methods, and that this area is to be used for fisheries production and that we manage the Bering Sea as a whole.

This it seems to me is the only way to fly and be really sensible about it.

If the oil industry or any other industry wanted to come in at a later date, the burden of proof should be put on them that what they do will not hurt this fishery or the mammals or the ecosystem.

Mr. ANDERSON. In the fishery you are talking about, the Bering Sea, is the present oil development in Alaska hitting the same area?

Dr. RAY. I could not comment on that specifically because frankly, it is a little out of my expertise and I think there are other people here who might be willing to comment on it.

However, to my knowledge there is exploration going on, in on the drainage system.

I do not think there is any offshore or submerged exploration for oil at the present.

Mr. ANDERSON. Thank you, Mr. Chairman.

Mr. LENNON. The gentleman from Maine, Mr. Kyros.

Mr. KYROS. Thank you.

Dr. Ray, as I understand it, your disagreement is with people who could be called "protectionists," people who are talking about absolute bans or moratoriums on killing. What do you feel is the real best interest of the animal herd or species and how can it best be served?

Dr. RAY. I really do not know what their best interests are. It is difficult to ask them.

I really think this is a very difficult question to answer because we are speaking on two levels. First, we are speaking on the level of our moral esthetic and social values and I have been an ecological rebel all of my life and I share these values.

However, when we are speaking of just plain scientific fact and biology you cannot always protect an animal by protecting the animal. You have to protect this habitat and you will protect the animal.

Of course, there are exceptions to this. Naturally, I was in favor personally of the moratorium that the U.S. Department of the Interior put on last year on whales because it seemed to be hitting at the economic pockets of the whalers who are then put under pressure.

I am in favor of complete protection of endangered species, but I am not in favor of what we might call the protectionism viewpoint in conservation.

I think this, as a philosophy, is an extremist philosophy that is based on moral values that are quite right in a sense, but which are not founded on biological fact or reality the way we understand our ecosystems.

Mr. KYROS. That is very well stated. I think that is an appropriate attitude which rational men could adopt. Would you please tell us which animals you would take scientifically, the number, where, and how?

Dr. RAY. This would be very lengthy. May I reserve it to what you say, scientifically only?

Mr. KYROS. Certainly; I think that is the crux of the difference between the Harris-Pryor bill and the bill filed by my colleague, Mr. Anderson.

Where can the animals be taken scientifically, putting social and moral reasons side?

Dr. Ray. I would say scientific take as well as a commercial take might be permitted and I think only under permit, only under restriction.

In scientific take, of course, it would be utterly inappropriate to take a population sample of humpback whales or right whales or blue whales. Any scientist that wanted to take these for whatever reasons at the present moment I would personally not be in accord with.

However, for gray whales on the west coast of North America the population has been estimated between 8,000 and 13,000 with a ball park average of 11,000.

For the breeding grounds we have not taken any of these whales since the 1850's to examine aspects of their nutrition, physiology, and so forth. We depend on some Russian data and a few data from Canada and one whale found on a beach to know what we know of that whale in the Bering Sea.

In this case we might specify that 200 or 300 whales might be taken on the breeding and feeding grounds to enlarge our knowledge of these species so we can further justify its protection and understand how to protect it.

Mr. Kyros. What about the other mammals mentioned in these bills?

Are we prepared to say how they should be taken?

Dr. Ray. I think Dr. Norris might like to comment on how many porpoises and how we might take these to find out about populations.

Yes, I think that the scientific advisory committee set up under this bill or other scientists and their individual expertise could give a pretty good program, for the take of certain mammals to learn more about them.

Some mammals would be prohibited from the take like the rare ones; others such as the fin whales of the antarctic, we might very definitely take a couple.

Right now, the difficulty with the take of large whales, of course, is it tied completely to the commercial operation.

We should not tie science to a commercial operation because it operates at a place and at a time, and this is not good science.

Mr. Kyros. First, let us distinguish between a commercial operation and scientific take.

Are you prepared to document in each instance what the size of the herd, what you need to take, and then take it for scientific purposes? Or would you say, "Let us not take anything until we study it first," and then you decide what to take?

Dr. Ray. In some cases I see what you mean. This is essentially a moratorium until we know what we are doing.

Mr. Kyros. Do you feel that you need a moratorium or the power to have one?

Dr. Ray. For certain animals we very definitely do.

For other animals, a moratorium cannot be justified for a couple of reasons. One is that the animals may be depleted, but they are still abundant as are some of the large whales.

A take of these animals, both scientific and commercial, could not be eliminated on the basis that the animal is either rare or on the basis that certain nations are going to also eliminate their take.

All we would be doing by establishing a moratorium is isolating the U.S. scientist. He could no longer take any and find out.

Mr. KYROS. One of the bills which I would call a protectionist bill which is before the committee, provides negotiations with other countries with regard to the take. How do you feel about that?

Dr. NORRIS. I think one of our feelings about the protectionist attitude is that, indeed, we do need protection as one of the tools of management.

The real crux of the issue that we, as humans, have invaded the ecosystems of every organic system on earth and those of the marine mammals we are talking about here.

This means that we have to judge and gauge the effects we have had on these animals, and this means some kind of management.

It does not mean locking them up and not looking at them or studying them. It means understand them; understanding what we as humans are doing to them, even though we are not taking any.

For example, we face an utterly unknown problem in the fact that the highest levels, if I am right about this, known for DDT accumulation in tissue, are found in marine mammals.

What this is doing to the reproductive potential of these animals we cannot even guess, as you have already found out.

In my estimation, we have to get to work, and we have to be given the tools to work to find out; and if this takes some kind of management, then so be it, but I think protectionism is not going to solve that problem. It is only one tool that a manager should use.

Mr. KYROS. Protectionism does not preclude scientific taking and research in any event, does it?

The protection we are talking about refers to commercial taking in large numbers.

You are now speaking about being scientifically able to take animals and study the effects of pesticides upon them.

I do not quite understand this esoteric argument you have just made, that the hand of man has impeded every ecosystem; for example, our pouring our sewage out into the harbors.

So return to the mammals, should you research efforts be tied to commercial operation?

Dr. NORRIS. No.

Mr. KYROS. Then what marine mammals today are presently the subject and object of commercial operations? Can you list them?

Mr. SCHEVILL. I can try, sir. Possibly obliquely I agree that we should not get mixed up with the commercial operations, yet many of the animals we are studying are too big for you and me to handle by ourselves.

You can give me a small boat and I can go out and catch a porpoise if I need one, and with luck I can cope with it.

For instance, when the Department of Interior was conducting its great whale study a few years ago, as Dr. Ray said, they chartered a commercial whale catcher, and as part of the charter fee, I do not know the exact arrangements, but apparently allowed him to use the carcass in his usual way after the measurements and what all had been taken.

If we are going to try and study such beasts in the future, we have certainly got somehow to have a ship that will do the work.

As you know, these are very expensive things, and I think it was very wise of Interior to use an existing commercial outfit with trained hands who knew what to do.

One of the things that the three of us are interested in is trying to find if the small vessels could not somehow be made available for research, which would have the seakeeping and big animal handling potential.

At the moment, none of us have the price of one of these things.

Mr. KYROS. If you could do it, then, you would not tie research with commercial interests, although you have done this before.

Is it not a fact that commercial operations are really designed to protect and increase profits, and are not designed for the best interest of any particular species or herd?

Dr. RAY. Of course, they are designed to make profits, and I do not think we need to belabor the history of international whaling.

I think this has been, in spite of the legal advantage of having limitation into a fishery, why the whales have been depleted. None of us would argue that.

However, in the fur seal case, let us take an example. It is the only example we have where the commercial operation and the scientific operation have gone hand in hand to great advantage and, if I may use the word, the herd and economics have both benefited.

Now, I am not saying I want to wear a fur seal coat. I do not. I am not examining why we kill the seal, but I am saying money has come out of it, and the herd has not been hurt, and, as a matter of fact, in many cases it has been aided by these arrangements because it has allowed us to focus our attention on this herd, give it a vast amount of support, a vast amount of a public awareness, and given us a model.

I absolutely shudder to think what would happen to the walrus, for instance right now today, if someone decided to go in there and start clubbing walruses. There is nothing to prevent anybody from doing it if they come from some other nation.

There might be certain laws, but I would like to see a model, a fur seal model, applied here, but in this case I would like to see management not be directed toward the kill of walruses, but to our enjoyment of the walruses.

Mr. KYROS. Do you think that a moratorium on killing some of these marine mammals would hamper our State Department in its negotiations to achieve an agreement with foreign countries?

Dr. RAY. There was one statement made before the subcommittee in which someone stated the position of the State Department and was taken to task for it. I do not want to do that.

Looking from the outside I would say if I were a member of a foreign nation looking at the United States and I knew that the United States was going to eliminate economic gain for a fishery, shall we say, then I would be prejudiced against that nation. I would be prejudiced against the United States because it would seem that the United States on limiting its activities would also be limiting mine.

If, on the other hand, the United States came to me with a broad management plan, let us take the Bering Sea again for an example, where we could take fishes and fur seals together and if I came with this sort of management plan and no categorical moratorium, I think if I were a member of another nation I would be favorably impressed to say this is something I can work with.

That is my philosophy.

Mr. Kyros. Thank you very much.

Thank you, Mr. Chairman.

Mr. Lennon. I am sure that members of the subcommittee will agree that the subcommittee is most fortunate in having the gentlemen here representing many years of scientific expertise which they individually and collectively have made a great contribution to the major concern of the bill, H.R. 10420.

I was particularly impressed after reading your background and your long years of scientific involvement in the subject matter with your statement on page 2 beginning with line 16 through 31 and particularly that part that begins on line 25 which I find myself in general agreement.

Neither the extreme exploitative nor the protectionism point of view give sufficient attention to the interdependency between animals and their environment.

What is needed is a system of flexible management, based upon a continual scientific reappraisal of the ecological health of populations.

To me, that is a significant statement, and after these years you have identified yourself as conservationists, you recognize a rational, reasonable approach to this matter.

I would like you to comment perhaps again since I was not at these hearings, your statement on page 3 beginning on line 30 with reference to the testimony of the Committee on Humane Legislation, which took a stand against this amendment as well as a stand against harassment and kill.

I cannot help but find myself in agreement with it. It points out so significantly the thrust of people becoming involved at this point in time and saying they are concerned only with stop now, do not proceed.

I was not permitted to be present due to some hearings in the Armed Services Subcommittee and also to your question you raise as to why the National Wildlife Federation is opposed to the creation of a scientific advisory committee.

Then you go on to state why it should be done and what this committee should be composed of, qualified marine mammalogists and population biologists.

Does the bill presently before the committee, include such a committee with the definitive recommendations as to what its makeup should be, Counsel?

Does the committee bill now before us provide for a scientific advisory committee and does it set out definitively the qualifications of that amendment?

I just do not know.

Counsel, do you have an answer?

Mr. Potter. It does provide for the establishment of a scientific committee, Mr. Lennon, and it does go into some detail on this. Perhaps the witnesses would indicate whether it goes into sufficient detail on the makeup and function of that scientific advisory committee.

Mr. Lennon. I wonder if you could do that or if you would provide for the record your specific recommendations and the bill may do it itself, I do not know. Does it provide for a definite number of the members of the so-called advisory committee?

Dr. Ray. May I make a comment on that, Mr. Lennon?

I think it would be somewhat pretentious of us to recommend exactly how this commission might work.

Many, many people have been working on this. I have given it a lot of personal thought and I know that many of my colleagues have also.

The Marine Mammal Commission, it seems to me, should act as a judge.

The Marine Mammal Scientific Advisory Committee is a panel of experts which has no direct regulatory or enforcement power. It cannot push its views down anyone's throat. It can only recommend on a scientific basis what might be done for research and to find something out.

These should definitely be experts. Who the commissioners should be or how they should report is not something that I personally am qualified to direct my attention to, although I would say just one thing. It is all very well and good to establish commissioners on a scientific advisory committee and I think here in these comfortable and lovely chambers we are not so much in the position of facing the snow or the Arctic or falling into nets.

I think it is absolutely mandatory to work out a very specific local level of management of research.

I can think of many examples of—and I am not as qualified as most are on this, but I can think of many examples where a structure such as the bill has in mind may fall down because it does not reach into the local level where the work is being done, where the animals are being killed, or whatever.

Some means must be found to break this chain of command from the fellow working locally who reports all the way up the chain.

By the time it has gone up the chain it is like people around the bridge table trying to tell secrets in each others' ears. You do not get the same secret as when it first started out.

I do not know if that is very clear, but in my mind the Commission will function exactly as well as the people on it are rather noble and unbiased.

Mr. Lennox. Well, the objectivity of legislation is generally good, but it is ultimately the Federal administration of that, that determines its productivity and its acceptance.

We run into that so often.

Would you comment, please, beginning on page 7 in which you make specific comments, and I would like to ask you gentlemen if you would furnish the committee, through its counsel, specific legislative recommendations which you think ought to be, or changes in the legislation or additional legislation that would sufficiently implement the five specific comments that you had to make on the bill, particularly the third which is found on approximately line 27, page 7, where you say: Native rights must be protected but this aspect is not clear in the bill.

Would you suggest legislation to our counsel that would make that clear so the committee can consider it when it comes to the point in time that it marks up the bill or gets to that point in time?

Dr. Ray. We will be delighted to help in every way we can and as expeditiously as we can, because this is an urgent matter.

With respect to point 3 we would be delighted to help. However, I would emphasize there are people, some in this room, who you might wish to have testify later that could direct their attention to this matter.

Mr. LENNON. I am sure that will be so, but I would like to have, since you have raised these specific comments on the bill, I would like to have your views in legislative form.

Dr. RAY. Delighted to give them.

Mr. LENNON. We return to the first specific comment.

Would you furnish for the committee any specific language that you think would properly and effectively implement your suggestions there?

Would this be covered by this bill, sir?

Dr. NORRIS. At the moment there is an exception listed in the bill concerning commercial fisheries which take animals incident to their operations.

In our notion there should be no exceptions to the permit system.

Mr. LENNON. You state the problem is on the way to the solution but are not yet backed up by specific facts, and you say that industry collaboration with NOAA must be visibly increased, and this problem must be solved.

Can it be done by legislative action, or can we provide a legislative vehicle on which the action may be done to bring into being what you have suggested in your first specific comment?

Dr. NORRIS. My feeling is that by the institutions of a merit system in which everyone who is concerned with taking mammals is required to go through the review procedure and constant surveillance of a permit. That in itself is going to be a very good first step.

The second thing is that we very greatly need an increased level of research on this particular problem; the tuna-porpoise problem.

Mr. LENNON. Now, your second comment, we assume that one task for the committee, would be to aid in the development of such guidelines with respect to views, suppliers, and things of that kind, private ownership of marine mammals, et cetera.

Is the bill now drawn, in your judgment, in such a way that the Scientific Advisory Committee would be able to establish criteria or guidelines which, after the development, they would have a binding effect?

Dr. NORRIS. Yes.

Mr. LENNON. Now, I am not going to pursue the others, but if you do have specific suggestions related to legislation on any of the five specific comments I would like for you to furnish them to the counsel.

Let us turn to your hopeful thinking about the establishment of the Department of Natural Resources in a reorganization plan that was proposed by the executive branch of the Government, but I understand the President, is now receding from at this time.

That looks to me like it is quite far down the road. What do you gentlemen think?

Dr. RAY. I do not know how far down the road it is. I was hoping it was not, but if it is, then we are up against a matter of serious jurisdiction.

Mr. LENNON. Well, we always have that problem.

Dr. RAY. There is one bit of jurisdiction that I have some rather strong and impolite words for, I am afraid, and that is this division between commercial fisheries and fish and wildlife.

I am sure if the animals involved read the bills they would not understand them either.

I just do not see how we can have some marine mammals, for instance the sea otter, designated as a wildlife species under one Secretary, and another animal swimming in the same waters, the fur seal, under so-called commercial fisheries.

I do not understand this, Mr. Lennon.

Mr. Lennon. Well, I will interrupt you long enough to ask you if you appeared before the Subcommittee of Government Operations when it was considering Reorganization Plan No. 4?

Dr. Ray. No; I did not.

Mr. Lennon. Which brought into being NOAA, within the Department of Commerce, and made this change from the Department of Interior.

That was the point of time that your voice should have been heard. We raised that question before the committee that was considering the President's Reorganization Plan No. 3, which provided for EPA.

Dr. Ray. I might have been off riding an ice cube with a walrus on it at that time.

The fact is I assume that nothing is a fait accompli. I assume as an eternal optimist that things that may not be right can be made so, and I am simply saying if you are going to treat marine mammals in the ecosystems that we better realine our departments and our politics along the lines that are realistic along the terms of our environments.

This has not been done, and the plan for organization of the Department of Natural Resources perpetuates the Bureau of Commercial Fisheries versus the Fish and Wildlife Service, by whatever name we chose to call it.

Just because you happen to call it NOAA does not make any difference. If you call it the Department of Natural Resources, that same division will still hold true.

Mr. Lennon. I cannot recall off the top of my head the agencies of the department of Government that will be included under the broad umbrella of the Department of Natural Resources. I think it will result in a fight whenever you merge anything, any facet of anything, you develop a fight within committees, in the subcommittees, and in the executive branch of Government as well.

Counsel, do you have some questions?

Mr. Potter. Thank you, Mr. Chairman. I do, indeed.

Dr. Ray, in your discussion with Mr. Kyros earlier we raised this issue which I do think lies at the heart of the confrontation between the "protectionists" and the "nonprotectionists."

It seems to me basic to what you are suggesting that under some circumstances it is to the best long-range advantage of a species or population stock to permit some taking from that species.

You discussed already the question of when this is justifiable in terms of expanding scientific knowledge.

Are there other cases in which such taking may be desirable in order to reduce the population levels to some place below the subsistence level for that population in their area?

Dr. Ray. Here you get into some rather complex, and by no means, clear population dynamics and ecological and even genetic theories.

Whether it is to the benefit of a population is a hooker. But I will say all populations, I do not care what they are, human population or any other population, tends to produce more offspring than can be absorbed by the environment or can subsist in the environment for ever and ever.

As you know, you get to the point where environmental resistance is felt by the population, until the population reaches what is called hypothetically the carrying capacity.

The population will fluctuate around carrying capacity. This is a fundamental. No one denies this.

Trying to measure carrying capacity is tough, because it fluctuates, too.

If the population feels an environmental resistance, then the reduction in the population will be carried out in a number of ways.

First, the animals may change their reproductive behavior. Quails produce fewer eggs when the quails get to a more than a certain density per acre.

In other ways too, there are enzymatic and hormone changes. The social structure of a herd may change so as to eliminate more animals from the breeding populations, but in some cases, the fur seal is an example, the environmental resistance is expressed in terms of an increased mortality, and sometimes this mortality takes a very unpleasant form.

If some persons looked at this mortality, they would go to the manager and say, "Is there something we could do," The manager would answer, "Reduce the size of the population." And you are then right up against the same thing again.

When we reduce the size of the population we are taking out certain ones. We are exerting a nonnatural check and balance on the population.

This may, it is admitted, have long-term genetic effects. We do not see what the effects are. Indeed, there are many scientists that argue vehemently about this.

I think your question revolves entirely on a value judgment.

Is it beneficial that that population be reduced?

Now, this does not precisely answer your question. Indeed, as I said before, you are getting into a matter of ecological and population dynamics theory.

However, I will say one thing, and as a practical matter again, that marine mammals represent a huge resource, a really huge resource. We are going to need this resource. There is no avoiding it, because humans are reaching carrying capacity.

One way of protecting that resource is by management of the resource, and this does involve a large kill, for commercial, utilitarian purposes, and also for scientific purposes.

In some cases, all of us are astounded as to how many animals it is necessary to kill before we can find out the physiology or behavior, or the level of pesticide in that population.

In international terms, the United Nations Conference on Human Environment in its Plenipotentiary Meeting next summer is going to consider a global network for environmental monitoring.

The people who are devising that conference in subsequent meetings are thinking about utilizing marine mammals as indicators of ecosystem health.

Now, you just have to recognize how many animals we need to utilize to monitor ecosystem health.

Mr. POTTER. I would like to come back to the central question that I was asking, admittedly in lay terms.

It seems to me what you are telling us is that when a population grows and reaches a certain level, members are going to die.

Dr. RAY. That is right, or may not come into being, Mr. Potter.

They may not be produced at all.

Mr. POTTER. And it may be if you reduce the limit of the population levels the survivors there would be less diseased. They will be better fed and healthier—recognizing this implies a human value judgment.

Dr. RAY. In many cases, this is correct.

Deer are an example of this. We just cannot let deer go, or the deer would be pretty miserable creatures.

Mr. POTTER. Do we know enough about the marine mammals covered by this bill to be able to say now that we can make any judgment on what the optimum level of these populations are?

Dr. RAY. On certain species we can. The species are almost restricted to the fur seals and the large whales.

We can make a pretty good judgment.

Mr. POTTER. As to those for which we do not have this information, does it seem to you that some form of restriction would be appropriate—some restriction on tampering with natural levels of population until we develop the research that would give us the answers as to what the optimum levels may be?

Dr. RAY. I think it is not widely recognized that most of those other animals are so covered.

Let us take the far away example of Antarctica, two species of the four species of seals are covered under international agreement right now.

Many of the fur seals are already so covered to the extent that international law can protect them. Many of the whales are covered, and so are the walruses and the sea otters by the United States.

Mr. POTTER. How is the walrus protected?

Dr. RAY. The walrus is protected except under permit.

Mr. POTTER. By Federal or State law?

Dr. RAY. Both. To my knowledge it is mainly the State does this, but the walrus, as a matter of fact, is increasing, and there is effective U.S. moratorium except under two uses, one is Native use, and the other is use by trophy hunters under permit.

Mr. POTTER. Well, we will have testimony from the State of Alaska a little bit later today, and we can get into that in more detail then.

You indicated on page 5 of your statement that it was desirable to put more sensitive management authority into the hands of the local managers.

In theory I have no trouble with this, but as we all know there have been cases in the past where the decisions of local managers have been made for a number of reasons that have not been to the advantage of the animal population, but to the advantage of exploiters.

How do you deal with these problems?

How do you insulate the managers from political pressure?

Dr. RAY. One rather simple way as contained in the bill, through the Commission.

I think any permits that are handed out, that is a public matter. You have a permit. You know where it went to, who is to file the report and for what reason that permit was granted, entirely open.

This matter has not been handled in this way in the past. It has been handled as a Bureau matter, or a Fish and Game matter.

Mr. Potter. On page 6 you indicate that the members of the Marine Mammal Commission should serve limited terms.

Are you suggesting that they should be limited in terms of years, and if so, are you suggesting also that it might be desirable to prevent them from succeeding themselves?

Dr. Ray. I think both are desirable.

Mr. Potter. How many years is it necessary?

What is the optimum yield?

Dr. Ray. For those of us who have served on committees in the National Academy or the National Science Foundation, I would like to ask Dr. Norris to comment, but 3 to 5 years seems to be my idea.

Dr. Norris. I agree with that idea.

Mr. Potter. And you do endorse the idea of new blood coming in?

Dr. Ray. Absolutely essential. I think this is important, too, Mr. Potter, for the scientific advisory committee.

I have an inherent fear of people who build empires. I have been accused of it enough times myself.

Mr. Potter. Unjustly, I am sure.

Dr. Ray. Probably not.

Mr. Potter. We will probably ask the same question of Mr. Burns, but you indicated that Eskimos are the principal predators concerned with these animals and that the level of the Native hunt bears careful scrutiny should it become excessive and restrictive regulations prove necessary.

What are you really suggesting here?

Dr. Ray. I have been working in one island of the Bering Sea for about 12 or 13 years, and mainly concerned with the walrus.

I think without knowing an awful lot about it now, I would concern myself with such a case as the bowhead whale.

The bowhead whale is valued by Eskimos, but we really do not know how many there are, and the hunt is, to my knowledge, and please clarify this with the gentleman from Alaska, to my knowledge the hunt is not restricted.

Now, we know pretty well how many walrus there are. We may not approve of headhunting. I certainly do not, but it goes on under certain circumstances.

I do not approve very much of taking baby walruses and putting them into zoos, although I did it myself for a number of years.

On the other hand, we know pretty much about the biology of the walrus. We can predict how many we can take without hurting the herd too much.

But bowhead whales—I do not see that we know this, if there are, indeed, 400 in Alaska.

What do we think of the annual reproduction?

Mr. Schevill. One calf every 3 years.

Dr. Ray. You say one calf for every 3 years, and you may have 50 reproducing cows out of that herd.

Suppose one out of every three from 50, and I really ball park it—this is another irresponsible guess, but let us suppose this is true—you get 15 a year that are produced, something like that.

I do not know what the Alaska take is, but it is not far away from that, and it has exceeded that, and you can be depleting the herd by Native rights.

I would not want to abrogate native rights, but I would want to look into this.

Dr. Norris. The take has been very inefficient. A considerable number of animals are killed before a single one is brought ashore.

You should investigate that, too, and it may well exceed the reasonable take for that species.

Dr. Ray. I have been impressed with the fact that if you get a permit, permit for four seals, this means to many people that they may take four home. But how many have you eliminated from the natural system? Suppose it took 10 captures to get four back home? This is often the case.

The Eskimos have an interesting way of looking at this, which is anthropologically interesting at least. If they shoot a walrus, and it goes to the bottom of the sea, they think it is still part of the sea.

We know it is true, but it is not a living part of the sea any more, and you better define take very carefully.

If he loses them all, that is too bad.

Mr. Potter. I would assume that the bill as presently drafted, the word take includes capture, so if you get a permit to take four walruses, you can harass four walruses, and if you lose all four of them, that is it Charlie, you go back and ask for another permit and you better explain why.

Dr. Ray. The word harvest is not viewed in such a manner by other people.

Mr. Potter. I would like to ask Dr. Norris two questions.

One, we have gotten some letters from operators of oceanaria to the effect that oceanaria serve a valuable social function in that they permit the carrying out of significant research.

Is it your feeling that the kind of research that is able to be done in connection with oceanaria has much value.

Dr. Norris. Yes, I think some of the every original, and some of the best work has come out of oceanaria.

I would say that many of them are not dedicated to this. It is usually the people on the staff who want to do this, and sometimes do it in spite of the oceanarians management. This is not always the case. They are useful in this respect.

Mr. Potter. My last question has to do with an area I know you are very much involved in—the use of remote sensing devices, telemetry, and so forth in connection with what is happening to populations of cetacea.

What is the present status of this, and what do you think the long-range outlook is?

Dr. Norris. Well, the need here relates to questions like we have been asking about the numbers of porpoises.

We do not know where the porpoises go, and in order to make a population estimate, even if you count the animals, you do not know whether you are looking at the same or variable populations, and so you need to track animals. You need to know whether they move on a seasonal basis or on a day-to-day basis.

Radio tracking has been developed in California. I have used it in Hawaii. We are hoping to use satellite tracking for the large whales, for example, the humpback whale of the North Pacific.

We do not know the numbers of those animals. We do not know where they go. We cannot tell you if there is one or a three migration route, and whether we are counting the animals three times or one time.

The ones we see in Hawaii, for example, we cannot tell you where they go.

Hence, these tracking needs are great, and we are faced with a severe budget constraint in having the chance to try such tracking.

Mr. POTTER. I have no more questions.

In your statement you indicated that you were submitting a copy of the report of the working groups from your conference.

With the permission of the Chair I ask that it be inserted in the record at this point.

Mr. LENNON. Without objection, so ordered.

(The information referred to follows:)

INTERNATIONAL CONFERENCE ON THE BIOLOGY OF WHALES

Skyland, Shenandoah National Park, Luray, Va., June 10–12, 1971

REPORTS OF THE WORKING GROUPS

Report of the Working Group on Biology and Natural History

THE RELATION OF NATURAL HISTORY TO WHALE MANAGEMENT

Many populations of large whales have been drastically reduced by commercial whaling. It is a truism that effective management of wild species requires that harvesting procedures be based on accurate knowledge of their natural history and their population structure and dynamics. Substantial information on these topics has been developed from data derived from analysis of commercially caught whales. However, to produce a picture sufficiently complete to be the basis of biologically sound harvesting, it will be necessary to fill in substantial gaps in our knowledge. The purpose of this report is to identify some of the more conspicuous of the gaps and to suggest methods that can be used to fill them. To achieve the goals that are outlined will require the establishment of two innovations in research methodology:

1. A program of pelagic research captures from specially equipped whaling vessels such as the Norwegian *Peder Huse*, which is a combined catcher and factory ship.
2. The development of methods for the study of individual whales through radiotelemetry.

Identification of Whale Stocks

Effective management requires that the distribution, size, and dynamics of the population in question be known. It seems clear that the effective biological unit in most whales is not the species, but the individual stocks or breeding population. Therefore, the unequivocal identification of stocks of all commercial species (and others as well) must be given high priority.

Methods.—(1) In addition to a continuation of the sampling methods used on the commercial catch, it is important to obtain detailed information on the movements of individually marked animals over long periods of time. To augment the traditional methods of marking, such as Discovery tags, tracking by radio-telemetry must be undertaken to give continuous records of individuals. (2) The methods of population genetics must be brought to bear—serological studies employing electrophoretic and immunological techniques, enzymatic studies, amino acid sequencing, and karyotype analyses. (3) Identification of parasites, diatoms, and other biological indicators. (4) Effective prosecution of these studies requires the use of small specialized whaling vessels on which a biologist must be in charge.

Population Analyses

It is essential that population analysis be uncoupled from the past and present dependence on the capture of animals on the traditional whaling grounds. An adequate picture of population structure can be obtained only if sampling is carried on throughout the year in all parts of the population's range and all classes in the population. To do this will require that the breeding area be found by exploration and that some selective whaling (under license) be done on a basis of scientific rather than economic need. It will be helpful if such breeding areas could be designated as *research control areas* where whaling would be by license only. Population analyses of the sort proposed will involve the use of ships such as the *Peder Huse,* which can serve as catchers, biological laboratories, and as factory ships, and are not confined to coastal areas. This will make it possible for whales taken for biological purposes to be commercially utilized. Animals captured for study and subsequent processing should be subjected to at least the following tests: (1) detailed analysis of reproductive state and reproductive history; (2) age determination using teeth, ear plugs, ovarian histology, jawbone structure, baleen, and biological samples prepared for later biophysical and biochemical study (analysis of seasonal variations of bone tissues by an electron-microscope, X-ray diffraction ultra-sound, etc.); and (3) determination of hormone levels where practical.

Trophic Analysis for Whales

Although knowledge of the biology of whales when they are away from the main feeding grounds must be sought (see above), detailed quantitative information related to energetics of whale populations must be obtained. A number of topics invite attention. A few of the more obvious are listed below.

1. Trophic effects of the removal of a major consumer, such as the blue or fin whale on (a) other baleen whales and (b) other consumers of the same trophic level (sea birds, pelagic seals).
2. Seasonal and geographic localization of feeding and the role of prolonged fasting.
3. Effects of age on food habits.
4. Role of patchiness of plankton on food searching and the local distribution of whales. Does patchy distribution of whale food such as krill allow uncoupling of the mean productivity of a region from whale energetics? To answer this would require simultaneous sampling of water and plankton at areas where whales are taken and comparison of the observed productivity with average values for the region.
5. Development of models for estimating metabolic rates of large whales and methods of direct measurements of metabolism on small ones.
6. Use of aerial (and possibly satellite) photography or remote sensing to determine patchiness and distribution of plankton.

The patterns of distribution of the feeding of whales are widespread geographically while at the same time, stocks are sufficiently circumscribed geographically that whales should be useful monitors of pollution of the oceans by heavy metals, pesticide residue, radio nuclides, and other fallout products.

The local distribution of whales and porpoises has already been affected by the environmental deterioration associated with human activities; their numbers in the southern parts of the North Sea have decreased markedly in recent years. Since whales are among the few marine animals that can be seen from above the surface of the sea and since they are at the top of the trophic pyramid, it should be possible to use them as indicators of changes in the environmental quality of the seas.

Natural History of Poorly Known Species

Work on the taxonomy and natural history of poorly known species should be continued and expanded. The smaller cetaceans, including porpoises and dolphins, in particular, invite attention. As previously indicated, they represent a biological resource concerning which our ignorance is almost complete.

Study of Unexploited Stocks of Large Whales

A few relatively unexploited stocks of large whales remain. They are too small to be of major economic importance, but knowledge of them can serve as baselines with which to compare stocks which have long been exploited or over-exploited. The sperm whale population of the western South Atlantic and the gray whale population of the eastern North Pacific offer attractive possibilities.

Whale Movements in Relation to Hydrographic Factors and Submarine Geology

To a marine mammal, the sea is probably an environment with many local variations. It is possible that bottom topography—submarine canyons, ridges, flat-topped seamounts, etc.—play an important role in their distribution and ecology. It is clear that oceanographic factors are important to them. The role of these elements of the submarine environment could be explored by the conventional means of correlating the occurrence of whales with them or by the detailed tracking by means of telemetry of individuals carrying radio packages that have sensors equipped for depth and temperature measurements (see below).

Telemetric Studies of Free-Ranging Individuals

Because we cannot directly observe whales in their natural environment, we have had to develop our knowledge of cetacean natural history by inferences drawn from dead animals and brief observations of live animals when they were near the surface. The development of radio telemetry offers the possibility of directly following known individuals for long periods of time, while also obtaining data on the environmental conditions they meet and measurements of physiological parameters from which behavioral responses can be deduced. It is technically possible to equip a whale with a telemetry and recording package which would allow the determination of location, abdominal temperature, water pressure, light intensity, velocity, time, magnetic heading, water temperature, heart rate, and breathing. From these data, it would be possible to follow an individual (either alone or in a group) and obtain information about location; direction and speed of travel; frequency, duration and depths of dives; times and depths of feeding; and the nature of the water through which it passes.

The Smaller Whales

It is important that we consider not only the "commercial" species—the baleen whales and the sperm whales—but also the smaller whales, including the porpoises and dolphins. These smaller cetaceans, although for the most part not commercially exploited, represent a resource of major potential economic importance. This has been clearly demonstrated by recent developments in the American tuna fishery, which has produced a problem of great economic and biological importance affecting delphinids of the genera *Stenella* and *Delphinus*. Tuna fishermen locate schools of tuna by watching for porpoise and sea bird activity. Having sighted a school, they enclose it in a long purse net which not only captures the tuna but also the cetaceans. There is at present no practical method for effectively separating these delphinids from the tuna. As a result, the setting of one tuna net may result in the death of scores or even hundreds of porpoises. Over most of the world, there is no good market for porpoise meat so the dead porpoises are discarded. It has been estimated that in the eastern Pacific alone as many as 250,000 porpoises are wasted annually as a result of this situation. It is obviously only a matter of time until this extremely efficient method of tuna fishing becomes widespread. The resultant wastage of porpoises will represent a major problem in all oceans. Aside from this specific instance, it is clear that in view of the worldwide shortage of animal protein, in the near future porpoise hunting as an end in itself will become an important enterprise. At present, we do not have the biological information necessary to apply effective management to a porpoise fishery—even the alpha-taxonomy of the smaller cetaceans is fragmentary. Knowledge of their natural history distribution—not to mention their behavior and reproductive biology—is equally incomplete.

George A. Bartholomew, Jr., chairman; A. Aguayo, W. Dawbin, R Gambell, A. Jonsgaard, K. Kenyon, T. Ichihara, C. Ray, V. Scheffer, W. Schevill, R. Vaz-Ferreira, members.

Report of the Working Group on Regional Populations

Stock identification is an important prerequisite for rational exploitation of a fishery. The working group considers that there are five main approaches to this problem for cetaceans: studies of density distribution; marking; biochemical techniques; morphometrics and morphology; and biological indicators.

The working group considered these five main approaches in relation to three categories of exploited species: large cetaceans (the larger mysticetes and *Physeter*); medium-sized cetaceans (minke, pilot, killer, belugas, narwhals and all species of beaked whales); and small cetaceans (dolphins, porpoises and the remaining cetaceans).

Before reasonable estimates of density distribution can be obtained, comprehensive catch and effort data have to be available. At present, certain statistical data are generally unavailable for large cetaceans caught off Spain, Chile, Peru, Korea, China, Brazil, and for the operations of a fleet of unlicensed whalers in the Atlantic. There are also inadequate data for animals caught in native and aboriginal fisheries. Better biological figures (length, sex, fetus, and month of capture) and effort information are needed for all minke, bottlenose (*Hyperoodon* and *Berardius* separately), killer, pilot, and beluga fisheries. There are incomplete data for beluga and narwhal fisheries in the Arctic and no data for pilot whale catches at Okinawa, for example. Some of these figures are handled by the Bureau of International Whaling Statistics already and it is recommended that this bureau or some other central agency should handle this extra work. In areas where a fishery involving small cetaceans is in operation, provisions should be made for the collection by regional bodies of catch data such as "species," numbers and, if possible, tonnages killed.

To obtain density estimates, more sighting work should be carried out by scouting vessels and those engaged in marking, especially in regions where no catching is done. Data for minke, killer, pilot, and all bottle-nose species should be collected. In addition, annual trends in the abundance of protected species should be monitored in as many areas as possible. Plots of regions of high density give indications of areas within which a stock may be found. These preliminary hypotheses can then be tested using one of the other four techniques. The correlation of high densities with existing oceanographic information may also assist in provisional estimates of stock boundaries.

The working group gives high priority to the use of biochemical methods, such as electrophoresis, immunology, and enzyme typing, as once the techniques have been established, relatively rapid results can be obtained. The group assigns the following priorities for this work:

1. Sperm whales worldwide, especially in the Southern Hemisphere.
2. Sei whales, Antarctic and North Pacific.
3. Fin whales, Antarctic and North Pacific.
4. Fin whales, North Atlantic.
5. Medium-sized cetaceans, North Atlantic.
6. Minke whales, Antarctic.
7. Bowheads, Pacific and Atlantic Arctic.

This technique is highly desirable for other medium-sized and for small cetaceans where fresh material may be readily available.

Independently of any biochemical method, it is recommended that marking of all cetaceans should be developed or intensified. The use of standard Discovery-type marks for large mysticetes should be continued. Further trials of more efficient streamer marks using larger and more conspicuously colored streamers are required. There is a need for test firings of increased-charge marks into sperm whale carcasses. The .410 Discovery-type marks also should be brought into wider use for calves and minke whales. This type of marking could also be carried out by non-whaling scientists from recognized institutions, and restricted to commercial species. Large spaghetti and other tags seem the most useful for the bulk marking of medium-sized and small cetaceans, especially in areas where there is a fishery. Experimental studies using radio-telemetry packages, freeze-branding and laser beams should be encouraged. Whenever possible, double marking, particularly using the Discovery-type .410 or other suitable tags, should be carried out on these animals. It is essential to consider the question of a central agency to coordinate the marking information. Priorities for species and areas are the same as those assigned for biochemical methods.

In areas where other methods are not available, the use of morphometrics is recommended. Certain simple morphological characters such as right whale callosities, flipper and baleen colorations in minke whales, the shape of Bryde's whale baleen plates, and the detailed documentation of color patterns in Delphinidae may all prove useful. Biological indicators such as external parasites and scarring, viral and bacterial flora, and possible dialects in vocalization may have a limited value.

In conclusion, the working group on regional populations recommends that research efforts be concentrated on the following problems:

1. The development of biochemical techniques for identification of populations.
2. The intensification of marking of large cetaceans and the development of new marks for all cetaceans.

3. The collection of more comprehensive catch and effort statistics for all fisheries where unavailable at present.

Peter B. Best, chairman; J. Bannister, S. Brown, W. Evans, E. Mitchell, S. Ohsumi, H. Omura, D. Rice, W. van Utrecht, members.

Report of the Working Group on Biometrics and Management

The group concludes as follows:

1. The northern and southern seas are among the most biologically productive regions on Earth. In these regions, macro-planktonic animals in most striking abundance are the euphausids and copepods—the diet of the baleen whales. Although direct harvesting by man of these zooplankton resources, especially of euphausids, has been proposed and some research is in progress to this end, practical and economic techniques have not yet been devised. Harvesting of whales is, at present, by far the most effective way of tapping these resources. Even if and when practical techniques are devised, they could supplement rather than replace the whale harvest since the optimum whale stock sizes (*i.e.* those giving maximum sustainable yields) are at about half the unexploited levels, and we would expect there to be a large harvestable zooplankton surplus in these circumstances.

2. The herds of the great whales, which are our common heritage, could at optimum stock levels contribute significantly to human needs for protein. We therefore concur with a policy for whale management which will insure that no stock is reduced below its optimum level or, when this has already happened, exploitation is restricted to permit the stock to recover to its optimum.

3. The history of the past centuries has been one of successive over-exploitation of many of the major whale species. Bowhead, right, gray, blue, humpback, and some stocks of fin whales have been depleted to well below their optimum levels.

The present scientific evidence is sufficiently good to provide guidance in general terms for the management of most stocks of large whales. Action has been taken by the International Whaling Commission to rebuild stocks of the most depleted species. Reduction of fin and sei whale stocks that had been occurring at a very rapid rate has been slowed or stopped. But this is not good enough since no deliberate action is yet being taken to rebuild the very important Antarctic fin whale stock. The more conservative estimates suggest that this stock, and some other stocks of fin, sei, and sperm whales, are still being depleted, although rather slowly. No action has yet been taken to prevent the over-expoitation of the remaining unexploited stocks of cetaceans, particularly the Antarctic minke whale.

The group affirmed that it is not enough to seek protection for a species only after its numbers have been so reduced as to threaten its existence. This minimum action is not resource management. Restraint should be exercised early enough that the species remains sufficiently abundant to fulfill its role in the ecosystem. It seems reasonable to assume that a species held at the level of maximum sustainable yield is still a major element in the ecosystem and that the policy of harvesting at maximum sustainable yield is therefore not at variance with considerations of ecology.

Existence of means of harvesting and of markets for the products must, in the absence of regulation, be seen as an implicit danger to the wellbeing of a species or stock. Thus, we recognize as a general principle of resource management that controls must evolve as new areas and species are opened to exploitation and as major technological innovations appear. In the past when industries have been allowed to expand without restraint, economic considerations have made it difficult or impossible for the industry to abide by the necessary reductions. Application of regulations after a period of over-exploitation has usually meant a period of painful readjustment to a more rational pattern. Increasingly rapid rates of exploitation might otherwise be presumed to lead to depletion before conclusive scientific evidence on the optimum stock size could be obtained and regulation secured. A possible remedy to protect newly exploited species might be to set an arbitrarily low quota which can be raised as data provided by capture indicate how high sustainable yields can be set. Specifically, it is recommended that conservative catch quotas should be set forthwith for the Antarctic minke whale stocks. Better scientific information would permit a more responsible attitude on these matters to be adopted.

As scientists, we feel that the burden of proof that any given rate of harvesting will not endanger a stock must rest with those who stand to benefit from such harvesting. The industry should accept the judgment of a competent group of scientists in this matter. Further, it should be the responsibility of those exploiting the resource to provde the statistical and other information regarding their operations which the scientists require to make their assessments.

Although scientific efforts in the past have been invaluable, they have been limited both in species and in geographical areas. For example, information on the abundance and distribution of all whale stocks in the Indian, South Atlantic, and South Pacific Oceans, and their relationships with other stocks, particularly the Antarctic stocks, is almost totally lacking. In the case of small whales in all oceans, it is almost absent.

Thus, we emphasize the need for a quantum jump in research personnel and facilities for research on a far broader front to elucidate the unknown potential of this important marine mammal research.

4. *Research Needs.*—Because of the importance of studying whales that are not exploited (either due to protection or to lack of an industry), it was thought to be of prime importance that techniques be developed which would produce useful information from live, free-ranging whales. The objectives of research, in relation to management, should be to produce the following information:

(*a*) The identity of individual stocks, their location, movement, and possible mixing.

(*b*) The number of animals being caught.

(*c*) The number of animals in the stock, both catch and stock being broken down by age, sex, and size.

(*d*) The relation between the number of mature animals and the number of young produced per unit time which survive to recruit to the fishery, and the density dependent changes in this relationship.

For (b) as regards the large whales, good information is available, mainly due to the activities of the Bureau of International Whaling Statistics. However, the meeting believes that (1) the introduction of an international observer scheme would add greatly to the reliance that can be placed on their data. Without the scheme, fears of incorrect reporting undermine the confidence that can be placed on the scientific assessments. (2) Similar data on numbers and sizes caught should be collected under a suitable international arrangement for all small cetaceans. Stock identity has, in the past, been studied mainly by traditional marking techniques, which are slow and often inconclusive. A number of new techniques offer good promise and should be investigated and used where possible. These include: (I) attached telemetering devices for following by ships, planes, satellites, etc., and (II) biochemical methods—these are now being used for sperm whales, but should be tried for other species. One of the principal needs would seem to be a tag that could be read without killing the animal.

Age data are available for most stocks of the large species and collection should be started for those stocks or catches for which data are not yet available. Some doubt still surrounds the precise interpretation of earplugs. New techniques should be tried, such as tags that will mark the animal's bones, teeth, or eye lens. Direct catch-per-unit-effort data need careful checking. Possible changes in the ship's equipment or tactics used by whalers should be examined to see whether the efficiency is likely to have changed. Sighting techniques should be improved and they should be used systematically. Observations on the changes, if any, in the abundance of the presently protected whales (blue, right, gray, bowhead, and humpback) by sightings or observations are needed. Other techniques which yield estimates of stock abundance, either of the whole stock or in a particular area, and which deserve further examination, include:

(*a*) Aerial and satellite tracking and surveys.

(*b*) Radio and sonic tagging, including transponders.

(*c*) Listening by means of hydrophone arrays.

Estimates of stock sizes and sustainable yields are now being made by more refined and a greater variety of methods. As a result, scientists are more confident of their conclusions. Nevertheless, there are sometimes divergent estimates, and we also cannot yet assign useful limits of error to any estimates.

International regulations tend to be based on mid-range estimates and we cannot at this time suggest a better policy. It is essential, however, that some calculation be made of the likely consequences of acting upon mid-range or other estimates if the true values are less or more favorable.

Effective studies of cetaceans will be costly and must usually be on a scale requiring international cooperation. There are some marine mammal research projects under the International Biological Program, and a coordinated study of the exploitable biological production of Antarctic circumpolar waters is being considered as a major project of the International Decade of Ocean Exploration, which has been declared for the 1970's. Arrangements should now be made for scientists to draw up and governments to fund in the framework of the decade a comprehensive program of cetacean research, with emphasis on the ecology, behavior and dynamics of the exploitable species and stocks, and monitoring changes in protected stocks. Such a program will require funding greatly exceeding present levels and it is reasonable to urge that this be provided. Present expenditures are quite inadequate for the declared aims of existing programs. They also represent an unacceptably small proportion of the income from the exploitation of cetacean stocks, even in their present depleted state.

A disturbing feature of the present situation is the almost complete lack of scientists working full-time on the population dynamics of whales. Assessments of the major whale stocks have been made by scientists working on whales in the time that could be spared from their other main duties. There is a great need within a general expansion of whale research for full-time studies of the population dynamics of whales, as well as, on the one hand, for whale biologists to become familiar with the concepts of population dynamics, and on the other hand, for population dynamics experts to study whales in more depth.

Implementation of Regulations

Though the implementation of regulations will have to take into account economic, social, and political factors, as well as the scientific evidence, the meeting believes that the following general considerations should be taken into account:

1. The entire species and all its component stocks should be considered. The subgroups of a species are very likely part of the evolutionary strategy by which the species took its place in the modern world and, thus, the geographic pattern of distribution and abundance must be considered as part of the health of the species as a whole. This implies that it is not sufficient to set a single species limit, but rather that limits should be set by stocks.
2. Management of the whale stocks of the world must insure that each stock of each species is maintained at or close to the optimum level. This would be achieved by setting a quota separately for each stock and is clearly not insured by the current blue whale unit system.
3. It should not be the strategy of the International Whaling Commission merely to maintain over-exploited stocks, but rather to allow the whale populations sufficient surplus reproductive potential to regain levels at which the populations can provide the maximum sustainable yields.
4. The estimation of what constitutes a prudent management practice should include the consideration of the possible effects of population catastrophes, such as failure of local food supplies, epidemic diseases, etc.
5. It should be the role of the groups, both national and international, to foster and encourage study in the research areas discussed. A new agency should be created, or an existing one mandated, to coordinate research efforts, including the job of applying to member-governments for support of specific projects.

RECOMMENDATIONS

1. The international observer scheme should be instituted at once.
2. The blue whale unit should be rescinded and replaced by a quota scheme that provides management of each individual species and stock.
3. Quotas for those species which are estimated to be at or above their optimum levels should be set at values which will not reduce the stocks below those levels; quotas for species which are below their optimum levels should be brought to values that will insure rebuilding of the stocks. The consequences of acting upon possibly erroneous mid-range estimates of sustainable yields should be studied and appropriate action taken.
4. A quota should be set for minke whaling in the Antarctic.
5. There appears to be a danger to certain isolated whale stocks, which could be destroyed in a very short time. There could be a particular risk from the irresponsible use of existing surplus whaling equipment, especially in countries not party to the International Whaling Commission. It is recommended that all nonmember nations of the IWC engaged in or entering whaling operations should immediately join the IWC and adhere to its regulations and that member countries of the IWC should take all possible steps to bring this about and seek to have universal adherence to its recommendations.
6. Regulations should be implemented as soon as possible to insure appropriate levels of protection for each sex of sperm whale.

7. A comprehensive long-term program of cetacean research, involving a very substantial increase in the number of scientists engaged in the field and in available research facilities, including special ships, should be planned and implemented as soon as possible.

Sidney J. Holt, Chairman;
K. Allen, L. Boerema, D. Chapman, T. Doi, M. Dunbar, Y. Fukuda, J. Gulland, R. Laws, J. McHugh, S. McVay, M. Nishiwaki, K. Norris, R. Payne, Members.

Mr. Lennon. Mr. Rountree?

Mr. Rountree. Thank you, Mr. Chairman.

I notice on the bill as it is presently written we have established, or would establish a marine mammal commission, assuming its enactment in its present form, what would be the net impact and effect and/or relationship with this marine mammal commission under H.R. 10420, and the existing Commission such as the Tuna Commission, Fur Seal Commission, the Whaling Commission, and any others for that matter, once we have enacted the bill in its present form?

Do we have some conflict? Do these go out of existence?

Would the Marine Mammal Commission substitute or take the place of these other Commissions as far as fulfilling our treaty obligations?

What really would happen here?

Dr. Ray. No, the Fur Seal Commission, for instance, is international, the IWC is an international commission.

There will be conflicts, I certainly would think, with certain agencies, both State and Federal, but I prefer to think these conflicts exist from the point of view of the people who think there will be conflicts.

In other words, I do not think that there need be a conflict where somebody else might feel there is.

I believe this Commission should serve, rather than to conflict, to aid the existing agencies, to take them off the hook, in a sense.

It would be broad enough to encompass the data from the various State and Federal agencies, but not to sit in pious judgment of those agencies, but let it aid them, through the Scientific Advisory Committee in reaching decisions that are broader than any one agency can contemplate through its mission.

Now, this is my attitude. I think as a counsel, as a lawyer, you would have to iron the rest of it out on a legal basis rather than on a theoretical basis.

Mr. Rountree. Thank you.

We have heard an awful lot of testimony that one of the prime and important aspects of any type of legislation in this area is that there is a greater need for more emphasis on a comprehensive research capability, not only on a State-local and Federal level, but also on the international front.

We have asked the Department of Commerce to submit their views on what this research program would be, what form it should take, and what level of funding.

I would like to ask you whether or not you feel that the bill in its present form might be somewhat deficient in the sense that it does not provide for a grant-in-aid type of system. What level of funding do you feel is necessary and what direction should we go in this regard.

Dr. Ray. Through our program we have gotten some experience in this, as well as some of the difficulties involved.

We are part of a national segment of an international program, and both nationally and internationally we are well aware of the deficiencies in both national funding and cooperation between scientists and international cooperation and funding as well, because there is no way, for instance, the United States can support a foreign scientist. There are some ways, but they are pretty difficult.

Now, the bill might well be deficient in both regards.

I think that these international programs, such as the IGY, the international biological programs and others are programs of scientists that seek to group together.

However, the support of such programs in terms of appropriated money from Congress has not been nearly adequate.

The International Biological Program, for instance, is supported by much less money than it takes to put up our weather rockets.

Now, I think that this sort of support should be increased, but by no means should all support, as we have said in our testimony, go to any one agency.

I think what we have to do is expand the missions of the existing Federal agencies, NOAA, the Office of Naval Research, and make available to the National Science Foundation significant funds and sufficient funds for a programmatic approach to marine mammals, rather than a project-by-project approach.

There is a national need in my opinion that we study marine mammals.

I think the legislation has to reflect that national need in terms of funding.

I cannot tell you what the level of funding should be, but it should be carefully scrutinized to keep excellence up, rather than simply pour money in.

We have to build on whatever high research quality we can start out with.

Mr. ROUNTREE. What has the level of funding in the past with regard to the National Science Foundation and under the sea grant program administered by NOAA for marine mammals?

I assume in your opinion it would be inadequate, or is there any?

Dr. RAY. Our program runs on a budget of about $60,000 a year. We would like to see it increased. We would also like to see other programs increased, but on a competitive basis.

Dr. NORRIS. In thinking over what I know of sea grant, I am not sure they support any marine mammal.

Dr. RAY. In Alaska they do, at least.

Dr. NORRIS. That must be a very minor part of their operation.

There is some support through NSF, but I cannot give you a figure. It is reasonably minor.

There is long continued support through ONR.

Dr. RAY. Well, the Federal and State agencies are the other ones, but there is no question that the major problem of support is the lack of a ship.

These animals live in the ocean, and the only way to study them is to go out to the ocean, or somehow get telemetry going.

The level for support for all these things is inadequate, not just from a scientific viewpoint, but the viewpoint of the national need.

We just simply have to increase it to find out what we are doing out there.

Mr. ROUNTREE. Do you feel this new cooperative research program which the tuna industry and the National Marine Fisheries Service recently announced will serve to meet the objections you have raised about access to ships for conducting research through commercial fishing operations?

Dr. RAY. Perhaps through that one industry, if this becomes a viable cooperation. No, this will not serve the total need.

Dr. NORRIS. It will not even come close to it, because we are dealing with global programs here in which we need to learn about numbers of animals, say on the equatorial current system, or the California current system, or the Gulf of Alaska, or the Bering Sea.

None of these are really going to be touched by the National Marine Fisheries Service program on the tuna problem.

Mr. ROUNTREE. Do you not feel that a partial or a total moratorium on a limited time basis might be imposed within the discretionary authority of either the Interior or NOAA would be one fairly effective game management tool which could be utilized?

Dr. RAY. It cannot be effective. We have moratoriums right now at the present moment, and we have had them.

Mr. ROUNTREE. Do you think a moratorium for a number of species for a specified number of years would be wise?

Mr. SCHEVILL. Currently there are various moratoriums on a particular species, but not always for a definite term.

Mr. ROUNTREE. Could you supply that data then for the record?

Mr. SCHEVILL. Well, several whales that are off the catch list now, the gray whale, the bowhead, the white whale, the blue whale, the humpback whale. Those are protected all over the world now in any waters, am I right in this, except for the native bowhead?

I am not saying that this is utterly enforceable, and as Dr. Ray mentions, there have been some so-called pirate whalers who do not belong to any of the countries.

Mr. POTTER. Can I pursue this for a minute?

It seems to me what Dr. Ray was saying a little earlier is that there are other species of animals that are also subject to moratoria or protection under various conventions. You do not have to present this information to us right now, but we would like to have it.

Dr. RAY. We need to list it species by species, I think.

In some cases, this will require looking into some of the laws of various nations of which I am not cognizant.

Mr. POTTER. Let us restrict it to areas where U.S. nationals are inhibited in the taking of these species.

Dr. RAY. We mention in our testimony that we significantly left off the list the small Cetacea, and a question was asked of Dr. Norris about oceaneria displays, and I sympathize with what he said.

I think guidelines and permit arrangements will solve many of the problems that we face with relation to capture of porpoises.

I can only reflect that it appears in contradistinction to our philosophies that we are not allowed to keep a pet robin. Nobody is, but anybody can keep a pet porpoise.

I do not see the logic. I think we have to really bear down on captive animals. And the porpoises are pretty well left off any restrictions except any local restrictions in Washington and some in Alaska, and some in Florida, as guidelines now drawn up, which I view as insufficient.

Mr. POTTER. As you may know, the Animal Welfare Act, which passed the Congress last year, is now in force, and that gives the Secretary of Agriculture the authority to regulate those exhibitioners and scientists who have in their custody warmblooded animals.

I have been in contact with the Department of Agriculture, and they have indicated that they do not propose at this time to regulate or establish—I better rephrase that. They are preparing to publish in the Federal Register the regulations for the care of warmblooded animals, but do not presently contemplate that marine mammals would be included.

Would you in this case recommend that whoever is given responsibility for permitting the taking of marine mammals should also be given authority to regulate conditions having to do with their care and custody?

Dr. RAY. I think so, if I understand the various jurisdictional problems involved; yes.

You see, by take of an animal, you can kill it, or you can put it in a zoo, or you can take it as a pet. All are takes.

Both Ken and I here were curators at institutions which we still admire, the New York Aquarium and the Marineland of the Pacific.

However, there are many organizations that do not quite come up to the caliber we would like to see.

I personally do not like the idea of people owning porpoises for one thing, and I personally do not like the idea of the sale of porpoises and seals.

If you get a permit for it, okay, it is your responsibility, but not to sell.

This is a personal view. I know modifications must be made.

Mr. POTTER. I will resist the temptation to ask you what you feel about people keeping other wild animals such as wolves.

Dr. RAY. You should.

Mr. POTTER. The chairman has asked me to apologize for the fact that he had to leave.

He also asked me to thank all of you gentlemen for your help and I think very useful statements.

The hearings will resume at 2 o'clock this afternoon and we hope that you can all be with us at the time.

Thank you.

The hearing is adjourned.

(Following the close of testimony of Drs. Ray and Norris and Mr. Schevill, three questions were asked of these gentlemen by correspondence. The questions asked, and answers provided, are as follows:)

Question 1. In your statement, you described the concepts of "sustainable yield" and "optimum yield," the latter figure being different when viewed from the objective of economics as against population health. Could you explain these in somewhat greater detail?

Answer. Sustainable yield is "A harvest equaling the net population growth at any selected population level.

Optimum sustainable yield is the sustainable yield that results in a population of an optimum number of animals. "Optimum" may be defined according to various criteria. The economic view might be the maximum number of the most salable animals that can be taken without causing decline. Biologically, the optimum yield might be less because the wildlife manager felt that some surplus animals were necessary for population or ecosystem health.

One should not confuse "sustainable yield" and "maximum sustainable yield." Any population, depleted or not, can have a sustainable yield. This is approximately the point at which present Antarctic whaling rests, for instance. The maximum sustainable yield is the largest yield a population can sustain under any circumstances, and is the point toward which the managers of whale populations should work. It will be several times the present sustainable yield levels.

Question 2. Is the monitoring of animal populations, most effectively done through the monitoring of the animals themselves, through monitoring what is happening to the most sensitive portion of their environment, or both?

Answer. This may depend upon feasibility and techniques available. However, we are dealing with a fundamental concept in which the animal to be monitored and managed may either be rather insensitive or very sensitive to perturbation. If insensitive animals are monitored, then the less sensitive organisms will be deleteriously affected and the environment will be damaged. If the most sensitive organisms are monitored, all organisms of the entire environment may be protected.

Question 3. Can you confirm or deny the rumors which have come to the attention of the Committee that some Asian countries are now giving consideration to the deliberate harvesting of porpoises and dolphins as sources of protein? If this is not now happening is there any likelihood of its happening in the future?

Answer. The Japanese use porpoises for human food in certain parts of their country. The market is apparently relatively limited and the prices modest. For many years, probably back into antiquity, they have captured porpoise schools that wandered along their shores. Today this is done by boats which go to sea to shoot and harpoon them and to catch them by what is called the Oikomi method.

In this latter method a number of boats set to sea, locate a school and maneuver behind it until they actually drive it into certain bays where it can be netted. The netted animals are killed regardles of species and sent to market. Only the smaller species or moderate sized animals are taken in this way. There is no firm evidence that this level of effort is reducing local cetacean populations.

As for tuna seining, the Japanese take part in the eastern tropical Pacific fishery and kill porpoises along with the rest of the fishery. There are no firm reports that they save the porpoises they catch. It is to be expected that they will, however, if they do not now, both because porpoises are food to Japanese, and because of their increasing use of high seas processing ships. In the latter case the catcher ships take everything they gather to the processing ship, and then the processor decides how the fish and other animals will be used. Thus, we expect they will utilize the porpoises they catch, if not now, at some time in the future; thus they may resist the attempt to develop gear that will release the animals.

I do no think that these porpoises are now in danger of extinction. I do think they are desperately in need of study so that we can derive the information needed to back up any attempt at international management.

(Whereupon the subcommittee recessed at 12:15 p.m. to reconvene at 2 p.m., the same day.)

AFTERNOON SESSION

Mr. DINGELL (presiding). The subcommittee will come to order.

This is a continuation of the hearings on the series of bills relating to the preservation and protection of marine mammals.

Our first witness this afternoon is Mr. John Burns, Alaska Department of Fish and Game.

We are happy to welcome you for such statement as you choose to give.

Counsel here informs me that you have no prepared statement, and we will recognize you for the statement you choose to give, if you will identify yourself fully for the purposes of the record.

STATEMENT OF JOHN BURNS, ALASKA DEPARTMENT OF FISH AND GAME; ACCOMPANIED BY DAVID JACKMAN, ESQ., ASSISTANT ATTORNEY GENERAL, STATE OF ALASKA

Mr. BURNS. Mr. Chairman, members of the subcommittee, thank you very much for the opportunity to appear before you.

We, the State of Alaska, did submit a statement which we would ask to be entered into the record.

Mr. DINGELL. Without objection that will be done at this point in the record and the Chair will recognize you for such additional statement as you choose to give.

(The statement follows:)

STATE OF ALASKA,
OFFICE OF THE GOVERNOR,
Juneau, September 10, 1971.

Hon. JOHN DINGELL,
Chairman, House Subcommittee on Fisheries and Wildlife Conservation,
House of Representatives,
Washington, D.C.

DEAR MR. DINGELL: I am submitting the attached statement of the State of Alaska's position on the various marine mammal protection bills now under consideration by your subcommittee. No state has a larger stake in the wise conservation of the many species of marine mammals for the benefit of future generations of Americans. In addition, the welfare of thousands of Alaskans is directly affected.

As this statement outlines, the State of Alaska opposes any bill which would depart from sound resource management principles, of which the present international fur seal agreement is an excellent example, in favor of a general and indiscriminate ban on the taking of marine mammals which would apply to endangered species as well as those which clearly are not.

This statement also explains our continued opposition to any extension of Federal jurisdiction over resident species of marine mammals.

Sincerely,

WILLIAM A. EGAN,
Governor.

Enclosure.

STATEMENT OF THE STATE OF ALASKA ON THE PROPOSED "MARINE MAMMAL PROTECTION ACT OF 1971" (H.R. 10420)

INTRODUCTION

During 1971, legislation has been introduced in the U.S. House of Representatives, dealing with the protection and management of marine mammals. Similar legislation has also been introduced in the U.S. Senate. Such bills include H.R. 6554 and S. 1315 cited as the "Ocean Mammal Protection Act of 1971," H.R. 7556, also cited as the "Ocean Mammal Protection Act of 1971," H.R. 10420, cited as the "Marine Mammal Protection Act of 1971."

The intent of this legislation is to extend federal protection (H.R. 6554, 7556, and S. 1315) or assert federal management jurisdiction over all marine mammals (H.R. 10420).

Most of this legislation has received consiedrable opposition from organizations and agencies concerned with responsible marine mammal management programs. An impressive number of national conservation organizations have expressed opposition to H.R. 6554 and S. 1315, as did the Honorable Ted Stevens, Senator from Alaska (see *Congressional Record*, Vol. 117, No. 100, June 29, 1971) and the Alaska State Legislature (see Appendix A). When compared with scientific marine mammal management, most of this legislation can best be described as an unrealistic approach to this problem in response to the well meaning but emotional pleas of some concerned U.S. citizens.

It is generally thought that H.R. 10420 is more realistic than other proposed legislation in its policy and approach. However, it still contains several provisions which could be detrimental to the State of Alaska. A wide variety of resident and nonresident marine mammal species occur in Alaska waters, and are important for the livelihood of thousands of Alaska residents. H.R. 10420 seems to imply an unwarranted extension of federal jurisdiction over resident species of marine mammals that could jeopardize current federal and state sponsored management programs. According to several knowledgeable informants, H.R. 10420, as written, stands a good chance of being approved in the House, if strong opposition to the assertion of federal jurisdiction over resident ocean mammals does not develop.

Marine mammals as defined in H.R. 10420 include several important species which the State of Alaska acknowledges as presently in need of total protection on an international basis. Conversely, several of the marine mammal species are neither presently, nor in the foreseeable future, in any danger of becoming extinct. In fact, many marine mammal species are being successfully managed on the basis of sound scientific information and responsive regulations. This latter group includes all of the species presently of importance to Alaska residents, with the exception of the whales.

Additionally, H.R. 10420 would also apply to several important species that reside within the territorial waters and on the lands of the State of Alaska. Assertion of federal jurisdiction and management over these resident species would be in direct conflict with "The Alaska Statehood Act" and "The Submerged Lands Act."

We fully recognize the present public interest in marine mammal conservation and applaud the response of Congress in proposing legislation to protect these animal species. However, if the marine mammal resources of Alaska and the world are to be perpetuated, sound resource management principles should not be rejected in favor of an indiscriminate ban. This is particularly true of those species which compete directly with man for resources of the sea (i.e., fur seals and sea lions utilizing fishes of the North Pacific Ocean and Bering Sea).

We present the following discussion of the State of Alaska's position on the major classes of marine mammals as they would be affected by the "Marine Mammal Protection Act of 1971."

PORPOISES, DOLPHINS AND WHALES (OTHER THAN BELUGAS)

The State of Alaska is basically in agreement with H.R. 10420 as it pertains to porpoises, dolphins and whales other than belugas. The preservation of whales has been the subject of a resolution by the Alaska State Legislature (see Appendix B). Porpoises and dolphins are species which are not utilized or managed at present, and for which there is no apparent potential use in the United States. Should a potential develop for their utilization, H.R. 10420 would assure that research was conducted to determine permissible harvest levels, and that harvests were then kept below these levels.

It is reported that United States tuna fishermen annually kill in excess of 200,000 porpoises, which are taken incidental to fishing operations and are not utilized. As presently written, H.R. 10420 would allow this wasteful practice to continue. We suggest that H.R. 10420 include provisions for research designed to develop methods of tuna fishing whereby the associated kill of porpoises would be greatly reduced.

Some of the large whales are in fact endangered and most are wide ranging. Some spend time within the territorial waters of several states and countries as in the high seas.

The State of Alaska does not have a whale research or management program. The federal government, through the Departments of the Interior and Commerce, will prohibit, after December 1971, the import of products from whales and their harvest by U.S. citizens. H.R. 10420 might conflict with these prohibitions by allowing permits to be issued for harvesting whales. However, if the effect of H.R. 10420 is the total prohibition of marine mammal hunting then, in the case of whales, the same thing has already been accomplished by actions of the Department of Interior and Commerce.

Alaskan Eskimos annually harvest 15–25 bowhead whales for human consumption. Although acculturation is changing many aspects of Eskimo life, bowhead whales have traditionally been hunted and utilized by these people. Because whale hunting and subsistence use is and will continue to be a significant part of the Eskimo culture, we fully support the provision in H.R. 10420 which provides for the present relatively low Eskimo harvest, and suggest the establishment of a research program to determine if such harvest levels can be continued indefinitely. If present harvest levels are excessively high, it is recommended that limited quotas be established for villages, and more efficient harvest methods be developed to assure 100 per cent recovery of all whales "struck."

Beluga whales, which are widespread in many of Alaska's territorial waters, including some rivers, are essentially a resident species. Some belugas are harvested by Eskimos each year for food. The Alaska Department of Fish and Game have been concerned with predation of belugas on downstream migrating salmon. A technique has been developed whereby recordings of killer whale vocalizations are used to drive belugas away from salmon migration routes. Because belugas are basically a resident species, are also an Eskimo subsistence item, and prey on salmon, it is recommended that they continue to be managed by the State of Alaska.

While the State of Alaska recognizes that the manatee is an endangered species in need of protection, it is also a resident species within several states. As such, these animals should be properly under state jurisdiction, if so desired by the states in question. At present the state and federal governments provide complete protection to manatees. Therefore, H.R. 10420 would provide little additional protection for these animals.

SEA OTTERS, SEA LIONS, AND LAND-BREEDING HARBOR SEALS

Certain marine mammal species are essentially resident in Alaska and its territorial waters. These include the sea otter, Steller's sea lion and land-breeding harbor seals. These species breed and pup on land or close in-shore, are not migratory, and spend the majority of their time either on land or within state territorial waters. Virtually all hunting of these species in the past has been conducted either on land or in the waters of Alaska.

These non-migratory species, like most land mammals, are not now and should not in the future be subject to federal control. The rights of the respective states to manage and utilize resident species is a precedent of long standing. This right has been reaffirmed by the "Alaska Statehood Act" and the "Submerged Lands Act."

None of these resident species are endangered, and all are under intensive study and management by the State of Alaska. Sea otters, once severely reduced in numbers have continued to increase under state jurisdiction and recent extensive transplants have reintroduced sea otters into much of their previous range. Certain populations of sea otter, primarily in the western-Aleutian Islands, have exceeded the optimum carrying capacity of their habitat and are presently subjected to high rates of natural mortality. These populations are capable of sustaining a limited annual harvest, for transplants, scientific use, or sale of products, and such a reduction in their numbers is frequently desirable.

Land-breeding harbor seals and sea lions, both the subject of former predator control programs, are now protected by seasons and limits. Commercial harvest of these species is regulated on a day to day basis by biologists at the various harvest locations. Both species are abundant and regional harvest levels are below the rate of natural recruitment to the populations.

NORTHERN FUR SEALS

Fur seals are managed by the federal government under "The Fur Seal Act." While the State of Alaska is not directly involved in the management of this species, it has a definite interest in the continuation of this wise and successful management program.

House Bill 10420 and the other related bills imply that an examination of the present fur seal program may show that harvesting should be curtailed or stopped on the basis of public opposition alone. This program has been reviewed continually by groups both inside and outside the federal government. These reviews have considered the humaneness of harvest methods, and the effects of these harvests on the fur seal population. We believe the present program is an excellent example of successful and intensive species management, based upon the application of sound biological information. Through this program the Pribilof seal herd has increased from approximately 200,000 animals during the early 1900's to its present optimum level of 1.3 million. It now sustains an average annual harvest of 50,000 seals.

House Bill 10420 offers, at best, a questionable future for the preservation of fur seals as a species. Termination of "The Fur Seal Act" could cause the United

States to lose management control of this valuable resource. A cessation of harvesting would result in increased natural mortality caused by overcrowding on the rookeries and increased demands on the fishery resources which support the seals, and are also utilized by man. The result would be no real improvement of the herd, but only an increase of mortality by starvation, disease, parasites and other natural causes. It is possible that the fur seal population might be seriously jeopardized due to a drastic population decline caused by the factors previously described, unless present population controls are continued. Finally, if harvesting were curtailed, the 600 Pribilof Aleuts would lose the ability to support themselves in their ancestral home.

Another critical side effect resulting from termination of "The Fur Seal Treaty" might be the resumption of pelagic seal hunting by other nations. Japan has expressed the desire to harvest fur seals in this manner. If the United States fails to manage this resource, other countries may have a justifiable reason for resuming pelagic hunting. The compensation provisions of H.R. 10420, in all likelihood, will not be adequate to prevent this possibility. There would be little if any reason for a foreign nation to accept this compensation when the potential and biological justification for harvesting a larger number of fur seals on the high seas exist. Such high seas hunting is non-selective with respect to sex and age of animals taken, and there is a substantial loss due to wounding and sinking.

The present fur seal harvest program is subjected to constant and critical review. Any rational analysis of this program will reveal that it is not detrimental to the species.

OCEANIC HAIR SEALS

The term oceanic hair seals is used to differentiate between resident hair seals (i.e., land-breeding harbor seals) and those populations and species present mainly, or entirely beyond the three mile limit of state territorial waters. The oceanic species include ice-breeding harbor seals, ringed seals, ribbon seals and bearded seals. All of these species are presently taken by resident Alaskans, primarily Eskimos. These seals are not the object of commercial exploitation by American nationals. However, there is a substantial commercial harvest or ribbon and bearded seals by the Soviet Union. As pointed out in a report by the Honorable Ted Stevens, Senator from Alaska (Congressional Record, VI, 117, No. 100, 29 June 1971), these species presently appear to have stable populations. Estimates of numbers are: bearded seals—300,000; ringed seals—250,000; ice-breeding harbor seals—200,000; and ribbon seals—150,000. Ribbon seals are probably experiencing a slow increase in numbers, after having been reduced by Soviet commercial sealing operations during the early 1960's.

The estimated annual harvest of all hair seals in Alaska is about 25,000 to 30,000 animals. Approximately half of these are taken by Eskimos and used for food, clothing and the home manufacture of articles for sale.

To date, all four of the oceanic hair seals have been the subjects of full time research programs sponsored by the Alaska Department of Fish and Game, and directed toward sustained yield management. Regulations, as necessary, have been promulgated to attain this objective.

WALRUS

The Pacific walrus constitutes a population of marine mammals which is presently the subject of continuing investigation and management by the Alaska Department of Fish and Game. The commercial value of walruses for ivory was responsible for their initial decline during the period 1860 through 1920, and prompted the close management attention presently devoted to them by the Alaska Department of Fish and Game.

State regulations pertaining to walrus include: 1) a walrus refuge in northern Bristol Bay; 2) a permit system regulating the purchase and sale of raw ivory; and 3) a trophy hunting bag limit of one adult bull per year. However, there are provisions permitting residents who depend upon walrus for food, to take up to five adult cows or subadults (either sex) each year.

During the hunting season, Alaska Department of Fish and Game personnel are stationed at the major walrus hunting sites to enforce the regulations and conduct ongoing research programs. This effort requires five department employees for the entire spring hunting season, as well as the full time attention of two biologists.

There are estimated to be 70,000 to 110,000 Pacific walruses at this time and the population is continuing to increase.

POLAR BEAR

The State of Alaska manages polar bears, recognizing that they are a renewable resource, capable of sustaining an annual harvest without jeopardizing the welfare of the species. The Alaska Department of Fish and Game is recommending that a more sophisticated management policy be adopted by the state with high quality recreation use (photography, hunting, observation) as its principle objectives. Under the proposed policy, the use of aircraft in hunting polar bears would be prohibited and replaced by ground hunting, employing Eskimo guides. This would upgrade the quality of recreation furnished by hunting, and would be more acceptable to the general public. In addition, the number of bears taken would be reduced to a level where there would be no reason for concern about excessive harvests.

Only skins from those bears taken without the aid of aircraft can now be sold. Under the proposed new policy, sale of all skins would be prohibited. This would seem desirable if the economy of northern Alaskan coastal villages could then be bolstered by income received by Eskimos for guiding persons interested in photographing, hunting and observing bears.

The program for harvest assessment, initiated shortly after statehood, and intensified in succeeding years, has provided detailed harvest data since 1961. An intensive mark and recovery program is providing information on movements and the discreteness of sub-populations of polar bears. The State of Alaska is also conducting studies on polar bear breeding biology and productivity, denning, relationships of bears to sea ice and seal populations, incidence and levels of parasites, pesticides, and pollutants, in bears, and is radio-tracking these animals from aircraft (and hopefully satellites) to determine movements and obtain related information. Although it would be desirable for other organizations to study various aspects of polar bear life history, it would be most unfortunate if research projects now being conducted by the State of Alaska were terminated. This would occur if primary responsibility for research and management were transferred from the State of Alaska to the federal government.

It is acknowledged that only the federal government can conduct treaty negotiations with foreign governments. However, the State of Alaska could act as an advisor to the federal government in any such negotiations. This approach was successfully achieved by the unified and cooperative efforts of federal and state representatives at the 1965 International Polar Bear Meeting. Biologists from the State of Alaska have dealt directly and in a productive manner with research personnel from the federal government, and from other nations. This is evidenced by the good working relationships within the International Polar Bear Group of the International Union for the Conservation of Nature.

SUMMARY

Marine mammals occurring in the waters adjacent to Alaska and which are currently utilized to some degree by Alaska residents include: Steller's sea lion, sea otter, land-breeding harbor seal, northern fur seal, ice-breeding harbor seal, ringed seal, ribbon seal, bearded seal, Pacific walrus, polar bear, beluga whale, bowhead whale and California grey whale (the latter two are legally hunted by natives as the result of specific exceptions in regulations of the International Whaling Commission).

The Constitution of the State of Alaska states that, "Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses." (Article VIII, sec. 4). According to Alaska Statutes, Title 16, Section 16.05.020, the Commissioner of the Department of Fish and Game shall ". . . manage, protect, maintain, improve, and extend the fish, game and aquatic plant resources of the State in the interest of the economy and general well-being of the State. * * *"

The mandates set forth by the State Constitution and statutes are in part presently being met by the Alaska Department of Fish and Game. Investigation, management and protection programs are presently directed toward marine mammals as well as other fish and wildlife species. Six senior biologists, representing 72 man-months of time per year, are presently involved in the research and management of Alaska's marine mammals. These investigators are additionally supported by 48 man-months of temporary assistant time and 12 man-months of enforcement effort. Effective regulations are considered and promulgated by the Alaska Board of Fish and Game, as necessary. Furthermore, the Alaska Department of Fish and Game has the authority to institute emergency regulations whenever they are necessary.

With regard to management and enforcement measures, as applied to resources harvested outside of the territorial waters of the State, including marine mamals, various landing laws have been applied to all persons leaving from and returning to the State. This has been necessary in order to maintain a viable protection and management program aimed at those fish and wildilfe species occurring and being harvested outside of the State's territorial waters.

The preceding comments evidence the State of Alaska's sound, flexible and responsive management and protection program. This program is currently contributing to the welfare of those marine mammal species of importance to Alaska residents with the exception of the bowhead and California grey whales, and the northern fur seal, which are all presently subject to federal jurisdiction.

APPENDIX A

Introduced: May 4, 1971.
Referred: Resources.
In the Senate by Hammond.

SENATE JOINT RESOLUTION NO. 146 IN THE LEGISLATURE OF THE SENATE OF ALASKA, 7TH LEGISLATURE, FIRST SESSION

URGING THE DEFEAT OF S. 1315 AS PRESENTLY DRAFTED

Be it resolved by the Legislature of the State of Alaska

Whereas the intent of S. 1315 which prohibits the killing or importation of polar bears and certain marine pelagic mammals, including whales, seals, sea otters, porpoises, walrus and sea lions, is admirable, the direct consequences for Alaska would be disastrous, with little or no beneficial effect for the species involved; and

Whereas, unlike other areas to which the bill is addressed, Alaska's populations of the species prohibited by S. 1315 are not endangered, clearly manageable, and provide an important cultural and economic need for many of its residents; and

Whereas the prohibition of state-controlled harvest of sea otter may necessarily reduce future efforts to transplant the animals from their present habitat; and

Whereas the state must, for adequate management purposes, be able to allow limited harvesting, as well as biologically necessary predator control programs; and

Whereas complete elimination of the federally controlled for seal harvests in the Pribilof Islands, not presently causing any decline in the over-all population, could result in uncontrolled harvesting of that species by all nations on the high seas, thereby assuring its extinction; be it

Resolved That the Seventh Alaska State Legislature respectfully urges that S. 1315 in its present form be withdrawn or defeated as constituting a danger and serious misdirection not only to Alaska and its inhabitants, but to the very species which it seeks to protect; and be it further

Resolved That S. 1315 be amended by substituting for its harvest prohibitions, a sound and generously funded research program which would explore, in a comprehensive manner, the present populations of marine mammals in all the coastal states with a view toward implementing measures by which these species could be best protected and managed in the future.

Copies of this Resolution shall be sent to the Honorable Richard M. Nixon, President of the United States; the Honorable Spiro T. Agnew, Vice President and President of the Senate; the Honorable Carl Albert, Speaker of the House of Representatives; the Honorable Rogers C. B. Morton, Secretary, Department of the Interior; the Honorable Warren G. Magnuson, Chairman, Senate Commerce Committee; and to the Honorable Ted Stevens and the Honorable Mike Gravel, U.S. Senators, and the Honorable Nick Begich, U.S. Representative, members of the Alaska delegation in Congress.

APPENDIX B

Introduced: March 3, 1971.
Referred: Resources.
In the House by Specking, Bradner, Guess, Haugen, Meland, Moses, Swanson, Tillion and Whittaker.

HOUSE JOINT RESOLUTION NO. 37 IN THE LEGISLATURE OF THE STATE OF ALASKA, 7TH LEGISLATURE, FIRST SESSION

RELATING TO THE PRESERVATION OF WHALES

Be it resolved by the Legislature of the State of Alaska:

Whereas, but for the insatiability of the world's whalers during the past two decades, the sustainable yield today is but a shadow of what it could be if the stocks were given the opportunity to rebuild; and

Whereas this fact is particularly illustrated by the fact that the harvest in the antarctic fishery has dropped in a dozen years from two-thirds of the total catch to one-tenth; and

Whereas the quotas receiving tacit, if not explicit approval by the International Whaling Commission have contributed to the decimation of the antarctic fishery and unless conservation measures are immediately acted upon, the Pacific and arctic fisheries will also be destroyed; and

Whereas, as an example of the latter statement, this year's quota set by the North Pacific Commissioners for sperm whale is 240 per cent of the sustainable yield as estimated by reputable scientists; and

Whereas all of these facts lead to the fact that unless stringent measures are taken at once by the various whaling countries in concert, all species of the great whales may very well be extinct in the immediate future; be it

Resolved By the Alaska State Legislature that the International Whaling Commission immediately take action to prevent the further decimation of the great whales of the world, including the setting of quotas based on a scientific sustainable yield principle, and the implementation of the proposed International Observer Scheme; and be it further.

Resolved That as a unilateral conservation measure the Secretary of the Department of the Interior is urgently requested to retain all eight of the great whale species on the endangered species list, these being the Bowhead, Right, Blue, Humpback, Gray, Finback, Sei and Sperm whales.

Copies of this Resolution shall be sent to the Honorable Richard M. Nixon, President of the United States; the Honorable Rogers C. B. Morton, Secretary, Department of the Interior; members of the International Whaling Commission; the governments of the Soviet Union, Japan, Peru, South Africa, Norway, Canada, Australia and Spain; and to the Honorable Ted Stevens and the Honorable Mike Gravel, U.S. Senators, and the Honorable Nick Begich, U.S. Representative, members of the Alaska delegation in Congress.

Mr. BURNS. Thank you, Mr. Chairman.

With regard to the statement of the State of Alaska, perhaps it is worthwhile to cover some of the points that we feel are more significant and briefly some of the general comments included in this position statement.

First of all, it is obvious it is rather encouraging to have a subcommittee such as this and to see that people that are attending to testify, and people in attendance are interested in legislation to protect some of our great marine mammal resources.

This, in itself, is a sign of changing times which is all for the better.

It is obvious to everybody that Alaska has a major stake in the marine mammal resources of this Nation and of the northern high seas.

Alaskans are directly dependent on a daily basis on marine mammals. They utilize them because of the value that they place on these marine mammals; they are also very dependent upon the perpetuation in a healthy state of the particular resources which I shall mention.

We have in Alaska little direct influence from the standpoint of harvesting or influence from the standpoint of investigations of the larger cetaceans, the sperm whale, fin whale, minke whales, and others. We have a very great interest in the beluga whale and in the bowhead whale and in the California and gray whale, three of which are used by Alaskan residents to a limited degree.

It should be pointed out that the bowhead whale and the gray whale are actually utilized because of special provisions of the International Whaling Commission.

The marine mammals of direct importance to Alaskans include, in addition to the whales just mentioned, the Pacific walrus, the ringed seal, the ice oceanic harbor seal, the ribbon seal, the bearded seal, the polar bear, the land breeding harbor seal, the sea otter and the Steller's sea lions.

This is a major segment of the animals included in H.R. 10420.

Certainly H.R. 10420 is deserving of much commendation especially in light of previously introduced legislation which, from the standpoint of many people, particularly our own Alaskan residents dependent on resources such as marine mammals, was not very acceptable.

Rather than go through a great lengthly prepared statement I should perhaps refer to the summary. We could go point by point to each of these species that I have mentioned, but I am sure that there will be many questions concerning specific species and that some time can be saved here.

The summary of our position paper is as follows:

Marine mammals occurring in the waters adjacent to Alaska and which apparently are utilized to some degree by Alaskan residents include Steller's sea lion, sea otter, harvest seal, ribbon seal, ring seal, bearded seal, Pacific walrus, polar bear and California gray whale.

As previously mentioned, except for the bowheaded and California gray whales, the State of Alaska is presently engaged in research and management programs of most marine mammal species of major importance.

The constitution of the State of Alaska states that fish, forests, wildlife, grasslands and other replenishable resources belonging to the State shall be utilized, developed and maintained on the sustained yield principle subject to preferences among beneficial uses.

Article 8, section 4, constitution of the State of Alaska, according to Alaskan statutes, title 16, section 160502, the commission of the department of fish and game shall manage, protect, maintain, improve and extend the fishing, game and aquatic plant resources of the State in the interest of economy and general well being of the State.

Obviously, both documents indicate rather great responsibilities and the mandate set forth by the constitution and the statutes are presently being met by the Alaska Department of Fish and Game.

Incidentally, I failed at your request to identify myself and perhaps this is the time.

My name is John Burns. I am an employee of the Alaska Department of Fish and Game and function in the capacity of marine mammals biologist and also for a very short period of time as regional research coordinator for region 3, which is Alaska north of the Alaska Range to Point Barrow.

I went to Alaska in 1960.

From 1960 to 1969 I lived in Nome on the west coast, northwest coast, working specifically on marine mammals.

Since 1969 I have been in Fairbanks, continuing the work with marine mammals, basically trying to integrate the field work that has been accomplished to date.

We have devoted a lot of time to the study of a variety of species and much of this work is in the process of being summarized.

To go on with the summary, investigation, management and protection programs within Alaska are presently directed toward marine mammals as well as the other fish and wildlife species.

Six senior biologists representing 72 man-months of full-time effort per year are presently involved in the research and management of Alaska's marine mammals.

These investigators are additionally supported by 48 man-months of temporary assistant time and 12 man-months of enforcement effort.

I might point out that each employee, including the biologists, is designated as an enforcement officer with regard to fish and game regulations.

Effective regulations are considered and promulgated by the Alaska Board of Fish and Game as necessary.

Furthermore, the department has the authority to initiate emergency regulations whenever they are necessary.

Perhaps in the course of some following questions and answers this point should be kept in mind and that is the authority to regulate on an emergency basis, the authority or the procedures for promulgating our regulations on an annual basis and the procedures in effect for promulgating or maintaining regulations over a rather long period of time, all, of course, are obviously necessary for successful management.

With regard to the management and enforcement efforts as applied to resources harvested outside of the territorial waters of the State, including marine mammals, various laws have been applied to all persons leaving from and returning to the State.

This has been necessary in order to maintain a viable protection and management program aimed at those species occurring and/or being harvested outside the State's territorial waters.

This, of course, does not apply specifically or solely to marine mammals but also to our other very valuable resources including the king crab, our salmon, crabs—quite a variety of marine resources.

The preceding comments are intended to demonstrate that the State of Alaska has a sound, flexible, and most important, responsive management protection program.

This program is currently contributing to the welfare of those marine mammal species of importance to Alaska residents with the exception of the California, bowhead and beluga whales and northern fur seals which are now subject to Federal jurisdiction.

By and large the State endorses H.R. 10420 but obviously have several reservations.

First of all, we feel that as written, House bill 10420 would assert Federal jurisdiction over populations which are, in fact, resident in the State of Alaska.

My colleagues who preceded me this morning gave a very good account based on the scientific information that they have gathered and of equal importance on a personal, if you will, intuitive information that they have gathered over the many years of investigations of marine mammal resources.

They pointed out the necessity for recognizing stocks, a term which I personally do not like, but which is functional and usable, stocks that are different within even a single species.

For instance, I differentiate between ocean hair seals and land-breeding hair seals.

They also pointed out the differences in the status of certain species, including the fact that two have been in fact exterminated at the hands of man. Several are in absolutely no danger of being exterminated and some are even in between, obviously being overexploited at the present time.

It is unclear at the present time what influence or effect the House of Representatives bill H.R. 10420 would have on existing programs, on ongoing or continuing programs, on responsibilities for effective and, most important, responsive management research and enforcement programs.

Also, it is unclear in a review of H.R. 10420 what the actual intent with regard to a very important species such as the fur seal may be.

I have reviewed these bills, albeit as a person not familiar with legal terminology or procedures.

From the very first bills introduced which, in fact, would place a total moratorium on the harvesting of all marine mammals to the bill currently under discussion, whether these are successive attempts to accomplish the same objective is unknown.

It seems obvious to anyone sitting in this room today that it is not the intent of this particular bill to curtail, except on the basis of much sound biological information the utilization, the wise utilization of our resources.

We strongly recommend revisions in H.R. 10420 to include only the endangered or diminishing species.

As indicated in the first part of this bill and including the broad categories of porpoises, dolphins, and whales, however excluding the coastal dwelling beluga whales which also incidentally are natives of the coastal waters of Alaska within the United States.

We recommend the State of Alaska, because of its direct involvement on a very local level with man utilizing the resource in the field in the interest of marine mammal resources, should have responsibility or a major force at least in the management decisions affecting the resources under consideration.

In addition, we would also request jurisdiction of those populations, stocks if you will, which are, in fact, resident within the State's territorial waters.

We also recommend that current Federal management programs concerning the North Pacific fur seals be continued and that the North Pacific fur seal treaty not be abrogated.

Certainly, we have little to say regarding the management or protection of manatees, again a question of what is necessary to insure their perpetuation on both a State and Federal level.

Perhaps with that brief summary I should attempt to enlarge perhaps upon specific questions which may be asked.

Thank you.

Mr. DINGELL. Thank you very much, sir. It is a very helpful statement.

Mr. Pelly.

Mr. PELLY. Mr. Burns, would you enumerate those marine mammals that are, as you say, resident of the territorial waters of Alaska which do not go into Federal and international zones?

Mr. BURNS. Sir, I shall attempt to by first qualifying the comments.

There are none that you can definitely point to as occupying solely the 3-mile contiguous zone along the State of Alaska.

By resident, essentially we mean animals that spend the majority of their time, that are tied to the land areas for the production of young, for the rearing of young, that go out to, but have got to return to both the territorial waters and the actual territory of the State of Alaska.

These include the land-breeding harbor seals, the Northern Sea otter (Enhydra), the Steller's sea lion, an inhabitant of all of southeastern Alaska, the Aleutian Islands and not a northern dwelling seal and several very important stock populations of beluga whales, those in the Bristol Bay region, those in the Cook Inlet area, those occurring north of the Seward Peninsula.

All of the belugas are of importance again to our coastal residents because they provide a source of food.

Mr. PELLY. Can you cite me any court decisions or any document of any cases in which the Federal Government does not have jurisdiction where marine mammals, even though they spend a majority of their time in the territorial waters of the State, are not under the jurisdiction of the Federal Government?

Mr. BURNS. I am not sure, sir, that I understand your question.

Mr. PELLY. Well, in other words, what I am trying to say is can you establish any legal basis for claiming that marine mammals, even though they spend a majority of their time in territorial waters, do not migrate into international waters and therefore come under the jurisdiction of the Federal Government?

Mr. BURNS. Certainly they do, sir, migrate into international waters.

The present system with regard to management of the resources and the responsibility obviously fell upon the State of Alaska because there was no other agency to handle the management responsibilities and that is the only traditional jurisdiction of resource management that exists.

As far as I know at the present time the representative from our attorney general's office is here and he may wish to comment.

We have no specific legal claim at the present time.

Mr. DINGELL. If the gentleman from Washington would yield, I believe it might be helpful to ask the gentleman from Alaska, who is from the attorney general's office, to come up and sit beside you, and he might wish to give us a comment on that point.

Mr. BURNS. I might point out that the status of the various marine mammal resources and comments concerning their present condition and the utilization are primarily what I am and was prepared to provide to the subcommittee.

Mr. DINGELL. Well, at this point, with the Chair's permission, your associate can indicate any legal basis for turning the State jurisdiction over these marine mammals, and I think it should appear in the record at this point.

Mr. JACKMAN. I am David Jackman, special assistant to the attorney general, and I think our position certainly is there is ample legal grounds for the Federal Government to assert jurisdiction over mammals and over species which do travel into Federal or international waters.

What we are saying is that there is a sufficient basis for a good distinction to be made by the Federal Government between those species which are primarily in their habitat, resident species.

In other words, they are linked to a certain land mass; that is, the State of Alaska. They do not to any great extent migrate away into the high seas.

Mr. DINGELL. Well, of course, I appreciate that, and I think that certainly those who are concerned with protection of our resources realize that with such a vast landmass and such a vast coastline, it is impossible for a Federal agency to control or manage all affected marine mammals.

On the other hand, the State certainly is in no position to protect these marine mammals when they go beyond the 3-mile limit, and it would be very easy for foreign nationals to come in and diminish the stocks. Here the State would be helpless, whereas the Federal Government can negotiate treaties and work out mutually agreeable control arrangements.

I do not think I differ with you, but I just did not want to say that the State had jurisdiction over the marine mammals because clearly it is indicated they do not have it.

While I think the Federal Government would be pretty helpless to try to protect on an exclusive basis the marine mammals in the State of Alaska's territorial waters, it certainly takes a partnership, and it seems to me that it takes a Federal preemption as far as the protective laws are concerned.

Mr. POTTER. We have been furnished with some material on this point, which I ask be included in the record.

Mr. DINGELL. Without objection, so ordered.

(The material follows:)

THE LIBRARY OF CONGRESS,
CONGRESSIONAL RESEARCH SERVICE,
Washington, D.C.

To: Merchant Marine and Fisheries. Attention: John Dingell.
From: American Law Division.
Subject: Regulation of Marine Mammals in Territorial Waters.

Reference is made to your request for an analysis of the position of the Federal and State governments with respect to the constitutional powers of each to regulate marine mammals which pass through or reside within territorial waters.

By the Submerged Lands Act of May 22, 1953, 43 U.S.C. 1301 (e), 1311, the United States released and relinquished to the states all right, title, and interest of the United States in the natural resources, including marine animal life, in navigable waters within the boundaries of a state. This Act also permitted each state admitted subsequent to the formation of the Union to extend its seaward boundaries to a line three geographical miles distant from the coastline. 43 U.S.C. 1312.

Subsequent to the passage of the Submerged Lands Act the Supreme Court affirmed a lower court decision which, following earlier precedents, held that, in the absence of conflicting federal legislation under the commerce clause the regulation of coastal fisheries is within the police power of the individual state. *Corsa* v. *Tawes*, 149 F. Supp. 771 (D.C.D. Maryland 1957) affirmed 355 U.S. 37 (1957).

But the fact that the state has jurisdiction over, or even a property interest in, marine mammals in coastal waters, does not preclude the enactment by Congress of legislation affecting such mammals in the exercise of powers vested in it by the Constitution.

In a number of cases, the Supreme Court had held that federal law can be applied to dealings in state property or the operation of state-owned enterprises. For example, in *Case* v. *Bowles*, 327 U.S. 92 (1946) it held that the Emergency Price Control Act applied to the sale by the state of Washington of timber growing on lands granted by Congress to the state "for the support of common schools." It rejected both the argument that the Emergency Price Control Act was inconsistent with the terms of the Enabling Act under which the State was admitted to the Union, and the argument that, as applied to a State, the Price Control Act represented an infringement of States' rights in violation of the Tenth Amendment. Speaking for the Court, Mr. Justice Black wrote:

> Nor can we accept the contention that a special exemption could be read into the Act in order to permit States holding land granted for school purposes to charge more than the ceiling price set for timber. In reaching this conclusion we are not unaware of the difficulties which confronted the Commissioner of Public Lands of the State of Washington, nor of the importance of protecting the public interest in those school lands. Both the Act of Congress, which granted the land to Washington, and the Constitution of the State, had provided for safeguards in connection with the disposition of school lands. We do not question the wisdom of these precautions. We are mindful also of the fact that this Court has declared that grants of land to the State, like those here involved, transferred exclusive ownership and control over those lands to the State. *Cooper* v. *Roberts*, 18 How. 173. No part of all the history concerning these grants, however, indicates a purpose on the part of Congress to enter into a permanent agreement with the States under which States would be free to use the lands in a manner which would conflict with valid legislation enacted by Congress in the national interest.
>
> * * * The State of Washington does have power to own and control the school lands here involved and to sell the lands or the timber growing on them, subject to the limitations set out in the Enabling Act. And our only question is whether the State's power to make the sales must be in subordination to the power of Congress to fix maximum prices for state sales or to control rents charged by a State might result in depriving Congress of ability effectively to prevent the evil of inflation at which the Act was aimed. The result would be that the constitutional grant of the power to make war would be inadequate to accomplish its full purpose. And this result would impair a prime purpose of the Federal Government's establishment.
>
> * * * Where, as here, Congress has enacted legislation authorized by its granted powers, and where at the same time, a State has a conflicting law which but for the congressional Act would be valid, the Constitution marks the course for courts to follow. Article VI provides that "The Constitution and the Laws of the United States * * * made in Pursuance thereof, * * * shall be the supreme Law of the Land * * *."

The State Belt Railroad, a common carrier owned and operated by the State of California, was held to be subject to the Railway Labor Act in *California* v. *Taylor*, 353 U.S. 553 (1957). Again, the State argued unsuccessfully that Congress had no constitutional power to interfere with the "sovereign right" of a State to control its employment relationships on a state owned railroad engaged in interstate commerce. The Court held that in operating the Belt Railroad the State necessarily acted in subordination to the power to regulate interstate commerce which has been granted to the national government.

Article I, section 8, of the Constitution vests in Congress the power to regulate interstate and foreign commerce and to make all laws necessary and proper for carrying into execution that power. Hence it may regulate intrastate activities to the extent necessary to foster and protect interestate and foreign commerce, *Atlanta Motel* v. *United States*, 379 U.S. 241 (1964) ; *United States* v. *Darby*, 312 U.S. 100 (1941).

If Congress finds that products of any form of marine mammals move in interstate commerce and that protection of such mammals is necessary to insure the continued availability of such products its authority to enact necessary and appropriate legislation to furnish that protection would seem to be valid, as long as the Supreme Court adheres to the reasoning of the cases cited. It is possible that this reasoning might also be applied to certain legislation protecting mammals whose products do not move in interstate and foreign commerce, if their continued existence is necessary to maintain an ecological balance requisite for the survival of species whose products do move in such commerce.

Under the Supremacy Clause of Article VI, any legislation which Congress has constitutional power to enact will supersede State law to the extent Congress intends it to do so. The so-called pre-emption doctrine simply means that where Congress intends its legislation to be exclusive, states cannot legislate on the same subject matter, even to the extent of adopting laws which are not in direct conflict with the federal statute. *Florida Avocado Growers* v. *Paul*, 373 U.S. 132, 146 (1963).

We find nothing in the Alaska Statehood Act which would create any special problems in the enforcement of a law designed to protect marine mammals enacted in the exercise of powers delegated to Congress.

Mary Louise Ramsey,
Legislative Attorney.

Mr. Dingell. Now, in one statement that you have made, Mr. Burns, you said you felt that H.R. 10420 was preferable from your point of view as against certain other legislation.

What other legislation did you have in mind?

Is that legislation that is now enacted and on the statute books?

Mr. Burns. No, sir; I am referring to H.R. 6554 and H.R. 7556.

Mr. Pelly. You said "previously." I think you meant "enacted previous to the introduction of the Anderson bill".

Mr. Burns. Correct, sir.

Mr. Pelly. Well, that clears that up.

Do you see anything wrong with section 109 of H.R. 10420 which deals with cooperation with the States?

Does that satisfy the State of Alaska?

Mr. Burns. Sir, I would like to begin at least answering that question by saying that section 109, cooperation with the States, is an integral part of the bill presently under discussion and we feel that this section is deserving of further amplification.

That section does provide for satisfactory arrangements, satisfactory mutual responsibility for the management of the resources.

I think, perhaps, I might be using the wrong words to get across one of our main concerns.

Obviously, our main concern is perpetuation of these resources.

Later on, I can go into actual steps that have been taken to protect them, what their current status is, but without safeguarding through some sort of mutual cooperative agreements as perhaps provided for in section 109, there may be a very real possibility that the people dependent upon these resources would not be able to manage them for, perhaps, the same reasons that initiated introduction of House bill 6554 on emotional grounds. We wish to insure that the picture is an entire one with regard to management decisions and that there is the maximum utilization of scientific effort and manpower to find out the facts necessary to manage, "management" inferring a range of objectives from total protection, if it is necessary, to population reduction, if that is necessary.

Mr. Pelly. Well, as I interpret section 109, that is exactly what the proposal to develop cooperative arrangements envisages. All I would like to know is that anything additional that you would add into the language of this bill shall describe the circumstance under which marine mammals, which pass through or reside within the territorial waters of any State may be taken, and any marine mammal taken within the scope of such cooperative arrangement shall be deemed to have been lawfully taken within the meaning of the title.

Can you provide language that you would prefer to that?

Mr. JACKMAN. If I can make a statement on that. I think the real concern is that the section might be more explicit in allowing the kind of management flexibility on some of these resident species that the State finds it very necessary to exercise, for instance in managing the salmon stocks where, on a day-by-day or week-by-week basis. This sometimes cannot be done effectively and Federal regulation is, perhaps, set a year in advance or a long time in advance. There certainly is plenty of latitude within the section to provide for that kind of arrangement.

I think the State of Alaska would be much more comfortable with the legislation if it were more explicitly stated, in other words, that there be a different kind of permit procedure for say taking one of the larger, more endangered marine mammals than for those species which need to be managed on a day-to-day-basis, with closer cooperation with the State.

There is not any differentiation made.

Mr. PELLY. I thought you would prefer plenty of leeway to take care of the circumstances as they appear.

In other words, I would not think you would want the bill to spell out in detail provisions which in the future might be unacceptable to you.

I would have thought that this provided for a satisfactory cooperative arrangement.

If you have additional language that you would suggest and would be more comfortable with, then I would suggest, with permission of the Chair, that you submit it at a later date when you have had an opportunity to testify and prepare some of the language.

Mr. JACKMAN. Could I respond to that just briefly?

Mr. DINGELL. Without objection, the permission is extended to you gentlemen to make such insertions that Mr. Pelly has requested.

(The committee received no such insertions, prior to printing of the record.)

Mr. JACKMAN. Thank you.

Mr. PELLY. That is all.

Mr. DINGELL. Mr. Keith.

Mr. KEITH. No questions.

Mr. DINGELL. Mr. Potter.

Mr. POTTER. Just a few questions.

As you may know or do know we have had testimony before this committee on the circumstances surrounding the annual walrus hunt.

You have indicated to me and as a matter of fact the experts this morning also indicated that the walrus population seems to be growing.

Are the reports we have received correct that in some cases the Eskimos will hunt walruses by floating down in boats on groups on an ice floe, shooting them and then losing half?

If this is true, does this suggest it might be desirable to be able to require Eskimos to adopt a less wasteful method of hunting?

Mr. BURNS. To answer, I do not know which question to answer first. What is happening generally to the walrus?

I have before me a résumé of the harvest of walruses in Alaska since 1960. This includes the retrieved harvest, the animals actually obtained by the hunters and the total kill.

Mr. POTTER. And these are figures?

Mr. BURNS. These are figures.

Mr. POTTER. I would ask instead of reading them into the record that perhaps we might ask you to summarize them for the committee.

Mr. BURNS. Well, in summary the average annual harvest is approximately 1,700 animals. The average annual kill, including the ups and downs of successful years and unsuccessful years, the average annual kill is approximately twice that, indicating a loss of about 1 for 1.

Incidentally, it was not mentioned that the loss for whaling in bowheads is as much as 5 to 1.

Perhaps the methods which the people are forced to use because of the International Whaling Commission agreements, they can take whales in the traditional manner and that traditional manner provides, in fact, ineffective results in the high loss that they have.

That is neither here nor there. In 1962 we began most intensively our first real efforts at evaluating the status of the walrus herds, the population size.

On a Federal level, the U.S. official Wildlife Service undertook a very extensive aerial survey, through cooperative arrangements, agreement and work and incidentally which had been continuing throughout the years with no conflicts at all. As a matter of fact, the State of Alaska sponsored the most recent biological cruise into the Bering Sea involving 12 scientists from several institutions.

At any rate, the results of the aerial survey indicated a population ranging from 73,000 animals to 113,000 animals, establishing the high and the low ends of the spectrum with regard to abundance.

Our attempts were statistical, similar to those used by any life insurance company for calculation of life expectancy, population size, and projected population size and is well accepted, under well recognized criteria.

Our sampling procedure involved the acquisition of over 90 percent of material from over 90 percent of the walruses taken in 1962.

The results of our population estimate indicated a herd of approximately 93,000 animals.

I point this out only to show how this falls within the high and the low points of the aerial surveys.

Similar attempts were undertaken in 1968, also with the Fish and Wildlife Service doing the aerial surveys; the Department of Fish and Game in Alaska handling the statistical approach to population enumeration.

The final report from the Fish and Wildlife Service is yet to be published.

Our indications are a herd numbering between 100,000 and 125,000 animals.

Every indication—in a more general and, if you will—intuitive manner of looking at them over the years, and I have spent 11 years during the spring migration period looking at walruses, we have seen a very noticeable increase and they are also noticeably more available to our Alaskan hunters.

Mr. DINGELL. Would you yield? We have seen in the papers in Alaska claiming of wash-ups of over 800 dead walruses on the shores of Alaska and it was said that these animals arrived on the shore as a result of the annual eskimo hunting efforts.

I am curious. Does this not mean a much higher level of kill, rather a waste at a much higher level than 1,000 animals?

Mr. BURNS. Mr. Chairman, it means either a kill of much higher than 1,000 animals or it means, in fact, that the report in excess of 800 animals is erroneous.

If this is the case, the original report from the newspaper based on figures obtained by State officials and by fish and wildlife officials was 300. Perhaps the transition of a 3 into an 8 was a human error.

Mr. DINGELL. I find myself hard put to think that an Alaskan newspaper would be advertising a wasteful slaughter on the part of the natives up there, yet that was the distinct impression that I got.

Mr. BURNS. That is a correct one, sir.

Mr. DINGELL. Mr. Potter just handed it to me and it said who is in charge of the dead and decomposing and highly smelly walrus carcasses that are currently littering our beaches and it says there is an annual harvest of 11,700 animals by Russians and American hunters which involves random firing into the herds. Wounded animals are able to escape but do not live for long.

Is that a quote from you, Mr. Burns? It is in the Anchorage Daily News, August 1971.

(The article follows:)

[Anchorage Daily News, Wednesday, August 11, 1971]

NORTH OF THE ARCTIC CIRCLE DISPOSING OF DEAD WALRUS

(By JANE PENDER)

KOTZEBUE—Problem of the week in our village turned out to be, at a recent Council meeting, who's in charge of all those dead, decomposing and highly smelly walrus carcasses which are currently littering our beaches? And, not merely who's in charge, but also, even if he can be found, what can he do about it in the first place?

Several weeks ago, these nammals, which can weigh above three tons, began to washup on the beaches all the way from Shishmaref to the south to Kivalina north of Kotzebue. As many as 180 were counted north; another 80 minimum to the south.

There was a good deal of speculation as to what caused the large number of dead animals. Some people thought they had come across from the Strait from Russian hunts; while others speculated the deaths were the result of disease.

"Probably not," said Marine Biologist John Burns, of the state Department of Fish and Game in Fairbanks. "They are some of the animals which were lost during the spring hunt," probably at Little Diomede, King Island or St. Lawrence Island."

Of the annual harvest of about 11,700 animals by Russian and American hunters, fully half are lost, due chiefly, Burns said, to method of hunting, which is random firing into the herds. Wounded animals are able to escape, but do not live long.

A combination of late ice in the Bering Strait and westerly winds brought them in an unusual numbers this year, he said.

He said the number observed along the northern beaches is not usually high though the annual walrus kill is probably close to the reproduction rate. There are 95,000 walrus.

The problem which the village has now is that these big mammals are partially decomposed. The Field Sanitarian for Public Health Service, Rick Smith, in a letter to the Council strongly advised they be buried or towed out to sea.

But the problem of moving the amount of flesh, even by bulldozer, seemed impossible. Kotzebue Municipal Utilities, which operates the local garbage trucks, quickly redefinied garbage so it does not include dead walrus. Towing out to sea even assuming a line could be made to hold, might not be a permanment disposal; they could wash right in again. And, as one citizen pointed out from the floor, this is not a one-shot deal. The southerly beaches also contain tons of dead walrus, too, and the high fall tides combined with the normal fall southwesterly winds can be expected to move even more to Kotzebue's beaches.

After some discussion, B and R Tug, which has as a motto, "We tow anything," said they would at least go and take a look at the problem. And the Council moved to write to the Department of Fish and Game to see if they had 1) jurisdiction or, failing that, 2) any workable suggestions.

Mr. Burns. I do not recall ever making that comment. Miss Pender called by phone one day asking questions about the possible causes.

I might point out that the occurrence of dead animals on the beaches is very common.

In 1963 I was detailed at the request of our Juneau office to investigate the occurrence of some 230 animals that had washed up on the beach between Cape Krusenstern and Kivalina, just north of Kotzebue, in the exact same area.

At the time we were unsure as to whether they were the result of any one of a number of things, ranging from atmospheric, atomic testing on Wrangel Island, to some disease in a natural population of the island.

I went equipped with necessary field apparatus, Geiger counters to determine the relative amount of radioactivity and every other instrument we could to try to determine the cause of death.

The cause of death was lead poisoning. It was very obvious and these animals, in fact, constituted a good share of the animals that are lost and eventually wash up on the beach.

Mr. Dingell. You said lead poisoning. Are you referring to bullets?

Mr. Pelly informs me that bullets may have lead in them.

Mr. Burns. I am referring to bullets. Excuse me for being facetious, not in this case environmental contamination due to heavy metals.

Mr. Dingell. You indicated that at one page, and I apologize to Mr. Potter, it is his question, but it is relevant to the matter we are discussing, you indicated at one page in your statement a comment that was quite helpful.

You said, referring to the bowhead whale harvest, you said such harvest levels cannot be continued indefinitely.

If the present harvest levels are excessively high, it is recommended limited quotas be established and more efficient harvest methods be developed to assure 100-percent recovery of all whales struck.

That strikes me that both might have a great deal of merit.

Would you or your associate from the attorney general's office like to submit some language to us relating to establishing reasonably limited quotas for villages and also a requirement for fish and harvest methods not only in the case of bowhead whales but also in the case of species like walrus which apparently are being wasted and squandered in a fashion that causes some concern even in the State of Alaska.

Mr. Burns. We shall attempt to do that.

Mr. Dingell. Does it strike you that a requirement for specifying harvesting methods would be desirable in the instances we are discussing now?

Mr. Burns. It would be very desirable.

Technology, outside of the use on small walrus hide covered boats of the very effective Norwegian whaling cannon, is impractical.

One problem is that the technology for use in small boats by men up against the whale physically—one man in front of a boat on top of a whale—is not available to these people.

Certainly, within the technology available to us on how to destroy life, including human life, we ought to be able to come up with an effective and merciful means of killing whales.

Mr. Dingell. Maybe you ought to provide them an efficient method of harvest and require that they utilize it and fix orders.

We can properly cut the loss of bowhead whales. You indicate they are taking 15 to 20 a year but the loss is on the order of 5 to 1, if they are losing 5 for every 1 they take, you are talking about a loss of whales here of 75 to 125 and if you add the 15 to 25 you are talking about, a total harvest on the part of the natives up there of bowhead hales which is an endangered species which is not now coming back, it occurs to me that we are talking about an annual harvest of 90 to 150 whales of which 75 to 125 are being lost.

Mr. Burns. I could not agree more with you, sir.

The question as to the population size of bowheads in the Bering Sea as was pointed out to Mr. Potter considering the abundance as we can see it on a narrow scale indicates the population is not in a healthy state by any means, but populations are far in excess of estimates which are available to you.

I could talk for a considerable amount of time on that.

Mr. Dingell. Is there a higher level of population of bowheads?

Mr. Burns. About 400 animals.

Mr. Dingell. I do not know the population and I do not think anybody else does.

Mr. Burns. The reported population in figures I believe are available to this committee, correct me, Mr. Potter, if I am wrong, but they are 400 animals.

Mr. Dingell. Well, I do not really think the total number of bowhead whales is vital here.

I think it is pretty well agreed that the bowhead whale right now is an endangered species. The total population is probably below the level providing for the assured safety of the species.

I will take almost any figure that you care to give me with regard to population levels for bowhead whales and not quarrel with you and still make the assertion that that level was endangered and then ask ,you if you want to disagree with my conclusion with regard to the numbers of population.

I think whether you have 400 or 800 or 1,000 or even 4,000 your figure is not a sufficient number of bowhead whales to make the probable assumption that the future of the species is assured.

Well, thank you, Mr. Potter.

Mr. Potter. Just a couple of other questions.

You indicated, Mr. Burns, that the position of the State of Alaska is that its existing regulatory structure for resident species are adequate.

Is that a fair summary of the position of the State?

Mr. Burns. Mr. Potter, they are obviously adequate with regard to the pinnipeds in question.

Mr. Potter. Let's take the pinnipeds.

Some material has already been inserted into the record from portions of the Alaska Hunting and Guide Regulations, 1970–71 edition, that indicates in Alaska from Bristol Bay north there is no closed season or bag limit for any hair seals. (See p. 250 for information mentioned.)

I would say that at best that indicates no regulation at all.

Mr. Burns. Mr. Potter, I would reply only with regard to the setting of seasons and bag limits they are set in response to the population, the status of the population, the resource that we are concerned with.

As you could also see from those regulations we have closed seasons on harbor seals in units 1 through 5.

We also have closed seasons or a bag limit I should say on walrus in units 18, 22, 23, and 26.

With regard to the hair seals, including those only in the area north of Cape Constantine, the ring seal, the bearded seal, the ribbon seal and the ice-breeding harbor seal, that hunting at the level under taking for subsistence purposes by Alaskan residents will not endanger these stocks.

Mr. Potter. Am I correct that the ribbon seal is listed by the Department of Interior at the present time as rare?

Mr. Burns. The ribbon seal, Mr. Potter, yes. The ribbon seal is listed by the Department of Interior as rare.

This is a species which is unavailable for purposes of investigation except by access, ship access and that being ice reinforced ships including either icebreakers or research vessels.

Incidentally, we would support wholeheartedly the plea of my colleagues earlier this morning for the acquisition or availability of the vessels necessary to conduct on an intergrated basis research into the northern pinnipeds.

To get back to the ribbon seals, it was not until 1961, as a matter of fact that I could convince some of my colleagues that there were any more than just a few remnants and remaining populations of ribbon seals.

We have, over the years, had occasion to get into the central Bering Sea during the time of the year when they were most obvious to see.

Certainly, it was a striking change in thinking with regard to abundance.

Much of our information concerning the ribbon seal is contained in the literature of the Soviet scientists as you are well aware.

There are harvest statistics for 1962 which indicate a quota established and, incidentally, it is rather interesting, a quota established for the sealing fleet operating west of approximately St. Mathew Island of 15,000 ribbon seals harvested, at the same time when American investigators never even had the basic access to see where they were.

What I am driving at is the population frankly from all indications, including the view of the Soviet literature, our own observations indicate that the lowest populations we have seen and the poorest hunting success on the part of the commercial Soviet hunters occurred in 1962 and 1963.

They have drastically curtailed or reduced their quotas.

In fact, from the last information available to me from the Fisheries Ministry in Moscow it indicates a quota established of 5,000 animals. They recognized the reduction in original ribbon seal stocks.

They also recognized that they have to be brought back up and they point out that the stocks are still increasing.

Mr. Potter. They are all the questions I have.

Mr. Dingell. Mr. Kyros.

Mr. Kyros. No questions.

Mr. Dingell. Mr. Burns, you have given the committee a very helpful testimony and we thank you.

Our next witness is Mr. John McKean, International Association of Game, Fish & Conservation Commissioners.

If you will come forward and identify yourself for the record, we will be happy to receive your statement.

STATEMENT OF JOHN W. McKEAN, INTERNATIONAL ASSOCIATION OF GAME, FISH & CONSERVATION COMMISSIONERS, ACCOMPANIED BY PAUL A. LENZINI, COUNSEL

Mr. McKean. Mr. Chairman, I am John McKean, Portland, Oreg. I am director of the Oregon State Game Commission.

Last year I have served as chairman of a special nongame and wildlife committee of the International Association of State Game & Fish Commissioners.

I am here today representing the International Association of State Game & Fish Commissioners.

I am here under some embarrassment in that I am without portfolio for reasons that I would like to explain.

I arrived in town about 7 o'clock last night and was picked up by my friend, Mr. Lenzini here of counsel at the bus depot.

Anyway, we stopped to have dinner. I had 50 copies of my prepared statement on both marine mammals and the hawk and owl bills. I had all of my files on these matters, reference materials so that I could answer all of your questions with specificity.

While we were eating dinner someone broke into the car and stole my suitcase. I have none of my reference material, no prepared statement. I do not even have a clean shirt, Mr. Chairman.

Mr. Dingell. Without objection, we will afford you an opportunity to submit such additional material and statements on both of these matters as you so desire.

It is the intention of the Chair to move expeditiously on the consideration of the bill in full committee and it would be helpful if we have it by the middle of next week.

Mr. McKean. Further, before I proceed with my testimony I would like to explain that the expert testimony that was presented by Dr. Ray and his associates this morning and has preceded me, the gentleman from Alaska, they have all already presented much of the material that I had intended to present in the way of documentation.

Consequently, much of the information I intended to give you would be somewhat redunant at this point.

I am going to boil our statement down to the principles that the international seas in these bills on marine mammals and then invite your questions and, to the best of my ability, my memory, answer them for you.

First, I would like to address myself to H.R. 6554 which would prohibit any taking of marine mammals.

The International joins all of the other professional organizations and people that have addressed you on this subject in opposing this measure.

We consider it biologically unsound.

It, in effect, would jeopardize rather than benefit marine mammal populations. It would deny positive benefits to the public. It would negate the very effective North Pacific Fur Seal Treaty and place that very important species in jeopardy in our judgment.

In the case of H.R. 10420 our position is very much as explained by the gentleman from Alaska, Mr. Burns.

We appreciate that there is a place and a need for the Federal Government to assume responsibility for the welfare of cetaceans and other marine mammals that live primarily outside the 3-mile limit.

We feel rather strongly that those animals that are normally found along the coastline, within the 3-mile limit, the boundaries of the State should be retained under the protection of the respective States.

Specifically, the cetaceans, other than the beluga whale in Alaska and the killer whale in the State of Washington, we feel do deserve Federal protection and should be preserved under its national treaties with other nations.

The species that we consider to be resident are the harbor seals, the sea lion, the sea otter, the manatees, and in the case of Alaska and Washington they respectfully request that the beluga whale and the killer whale when they are within the 3-mile limit be subject to State regulation, management, and protection.

My objective here today is to convince you that the States have the authority, the expertise to maintain coastal marine animal populations at the optimal levels and achieve maximum benefits for the public and that Federal assumption of responsibility for resident wildlife is an unnecessary duplication and invasion of existing State programs.

In this connection, I would like to point out that the States are rapidly moving into the area of protection and management of nongame wildlife.

Currently, 34 States have a broad platform of responsibility for all wild mammals, amphibians, reptiles, and birds, including marine mammals in the case of many of the coastal States.

In the case of Oregon and Washington and the point in this last session of our legislature, both States, the game departments were given authority to protect and manage marine mammals and in our case it is all wild mammals, birds, amphibians, and reptiles except the cetaceans.

In the State of Washington cetaceans are included in the State game department's responsibility.

California has historically protected the sea otter, the Guadalupe fur seal and they have protected seals and sea lions from taking by any person other than a commercial fisherman who is suffering damage from those species.

The State of Florida is aggressively protecting the manatee and we fail to see where the provision of H.R. 10420 would significantly add to the protection of that species.

We do have some constructive development programs, the most notable of which on the Pacific coast is one of reestablishing the sea otter in the Pacific coast.

In the last 4 or 5 years there has been a very aggressive trapping and transplating program of sea otter.

The State of Alaska with the cooperation of the Atomic Energy Commission has been graciously providing planting stock for British Columbia, Washington, and Oregon.

In Oregon's case in the last 2 years we have received 90 sea otter. We received 60 of these this year and it looks very promising.

The animals are doing fine, Mr. Chairman. They are protected. They are respected by our people and we think we are making great progress in reestablishing this once native animal, depleted back in the 1800's.

Mr. PELLY. Do you have abalone off of Oregon?

Mr. MCKEAN. We have a few abalone. We are in the process of trying to establish additional abalone and this is a point I would like to bring out as an example of our concern for Federal encroachment or any handicap of the State's authority to manage these animal populations.

It was not easy for us in the area in Oregon that was most suitable for the reestablishment of the sea otter—it was a very productive bottom fishery commercial area, crabs. We have an abalone development program in this area. It is the last area we have the sea otter, the area where sea otters were most abundant in the history of the State and has the kelp beds and other conditions that are suitable for that animal.

We worked hard and long with the commercial fishing industry in trying to get them to accept the introduction of the sea otter.

The fishing industry was concerned from publicity coming from the State of California about the sea otter as a predator upon abalone, upon crabs, and other species that are of great economic value.

With our assurance that it was our intent when we got these animals established to manage them and not allow them to become so abundant they were going to seriously conflict with other values, we have had their cooperation. They agreed to this thing. They are cooperating. They are assisting us in giving us site records on where these animals are.

They are also assisting us in the protection and I fear anything that would cause them to lose confidence that the State would manage these animals is going to jeopardize our stock of sea otter on the Oregon coast.

They have the means, and law or no law, they could eliminate this population of animals.

For this reason, we feel that flexibility in management is an essential thing with any of these populations of animals and I am not degrading the need for protection of the blue whale, the gray whale, or the other species that are in some jeopardy.

Now, the International agrees wholeheartedly that there is a need for the Federal Government to exercise a greater role in the protection and management of the animals that are outside the jurisdiction of the respective States.

The Submerged Lands Act of 1953 confirms the respective State titles to the ownership, including marine animal life within the 3-mile zone of State coastlines.

Therefore, ocean mammals living in this zone by Federal statute are resident species that fall within State jurisdiction.

Exceptions to this are the fur seal, the majority of the cetaceans which reside largely in territorial and international waters.

We would like to see H.R. 10420 amended in a manner that will reserve to the States the full rights, protection, and management of these animals that live immediately on our coastline and within our 3-mile limit and have the provisions of H.R. 10420, or some similar legislation apply to those animals that inhabit, primarily, territory and international waters.

Briefly, that is a summation of our statement.

I think we can give you all the statistics we have on these various species and it would probably be redundant at this point because it has been given to you by many other proper authorities.

One other thing I would like to comment on is section 109 of the bill which is entitled "Cooperation With the States."

This section directs the Secretary to develop cooperative arrangements with appropriate officials of the several States for conservation and protection of ocean mammals.

The second provides further that such arrangements shall prescribe the circumstances under which marine mammals which pass through or reside within territorial waters of any State may be taken and further, that any marine mammal taken within the scope of such cooperative arrangement shall be deemed to have been lawfully taken within the meaning of the title.

The international association believes that such cooperative arrangement could be useful in achieving a successful program for development of marine mammals, not to preempt the State programs of management of marine mammals, but as an incentive for greater efforts.

Federal matching funds provided for the purpose of conducting management and research programs could further accelerate and improve the efforts already undertaken by State agencies.

Such cooperative programs could apply to those ocean mammals such as the sea otter, seals, sea lion, walrus, manatee which are truly resident species as well as cetaceas that reside in territorial and international waters.

California and Oregon are currently confronted with a loss of sea lions. We had this last year and both States got together. We collected animals, subjected them to thorough examination and in these investigations we found a most conspicuous cause to be a disease known as leptospirosus(?).

We also found high levels of DDT and its derivatives and mercury in the livers of these animals.

There is a need—or I just got word before I left home yesterday that again some of these sick animals are showing up and we are initiating another project to further evaluate the thing.

This is an example of regional and perhaps a national problem that deserves investigation and we are aware that the Federal Government could assist, conceivably conduct the research within its own shop and contribute something useful to all of us in achieving optimum management of these species.

In our view, section 109 should be redrawn to provide specifically for cooperative research and development programs.

It should also be made clear that the integrity of State management activity should be maintained with respect to the truly resident species of ocean mammals.

In this connection we should be pleased to work with the subcommittee in fashioning language suitable to this end.

Mr. DINGELL. Mr. McKean, it would be appreciated if you would submit through your very able counsel, Mr. Lenzini, for whom I have great respect, such comments in the nature of amendatory suggestions as you would, if you please.

I also note that you earlier suggested that you had some data and information that you thought might be helpful for the record, but perhaps it might be duplicative.

Submit it to us anyway and we will let the information speak for itself on that particular point.

Without objection, both items referred to will appear in the record at this point.

(The information referred to follows:)

STATEMENT OF INTERNATIONAL ASSOCIATION OF GAME, FISH AND CONSERVATION COMMISSIONERS

The International Association of Game, Fish and Conservation Commissioners opposes H.R. 6554 and seeks amendments to H.R 10420 which would reserve to the states management responsibility for marine mammals that normally reside within the three-mile coastal zone and broaden Section 109 of the Bill to authorize federal cooperation in the development and management of marine mammals, but not pre-empt established state jurisdictions.

The reasons for these positions are as follows:

1. Complete protection of ocean mammals, as proposed in H.R. 6554, could result in overpopulation, overutilization of food sources lowered reproduction and a waste of potential human benefits.

2. Harbor seals, manatees, sea otter and sea lions are primarily inhabitants of waters within the three-mile limit of state coastlines. Research and management programs are being conducted by the states and the populations are responding favorably. These resident species are not in jeopardy and there is no cause for the federal government to claim title to them. The beluga whale in Alaska and the killer whale in Puget Sound of Washington are cetaceans that normally occur within the three-mile limit and should be subject to management by those states.

3. Porpoises, dolphins and most whales commonly inhabit areas outside the states' jurisdiction. H.R. 10402, with suggested amendments, would instruct the Secretary of Interior to establish active management programs for pelagic species and to enter, when necessary, into international agreement for research on and conservation of whales, porpoises and dolphins.

Federal protection and management of whales, propoises, dolphins and fur seals in territorial and international waters is endorsed by the International Association.

4. States have qualified personnel experienced in marine mammal research and management. The federal proposal would replace or duplicate existing and potential state programs.

5. The management of marine mammals, other than whales, porpoises, dolphins and fur seals can best be executed by the individual states. Most coastal states are engaged in comprehensive planning for development and management of coastal marine resources. Authority to protect and manage animal populations within the coastal zone is essential if maximum benefits are to be achieved.

6. Section 109 of H.R. 10420 authorizes the Secretary of Interior to enter into cooperative agreements with the states for conservation and protection of marine mammals. The Association recommends that the objective of this section

could be achieved through a cooperative program such as the "Anadromous Fish Act of 1965", without claiming title to resident resources that have historically been the property of the people of the states.

DISCUSSION

The Submerged Lands Act of 1953 confirms state title to and ownership of natural resources, including marine animal life, within three miles of the coastline. Therefore, ocean mammals living in this zone are, by federal statute, resident species which fall under state jurisdiction. Exceptions to this would be the fur seal and the majority of the cetaceans which inhabit international waters.

State wildlife agencies can point with pride to their achievements in marine mammal management. Normally, emphasis has been placed on species that are associated with state coastlines, islands or other land masses. These species include the sea lion, beluga whale, killer whale, walrus, sea otter, manatee, polar bear and seals other than the northern fur seal. Porpoises and dolphins have not received great emphasis because they primarily inhabit international waters and do not form discrete resident populations along state coastlines. The majority of whales and the northern fur seal have historically been controlled by the federal government and have not been included to a major extent in the programs of most states.

Sea lions and seals receive general protection along the Pacific coast with the exception of Alaska. These animals can cause serious economic losses to commercial fishermen and when this occurs, the offending animals may be taken. The state of Alaska allows the harvest of seals and sea lions throughout the year because of the adverse effect large populations of these animals have on a commercial fishery. Of this group of mammals, only the Ribbon Seal has shown a decline in numbers. This decline has been caused by excessive kills in the Chukchi Sea by the Russian sealing fleet. Passage of H.R. 6554 and H.R. 10420 would provide little protection for the Ribbon Seal. However, an international treaty could be established without passage of these two bills.

After lows at the end of the 19th century, walrus numbers have increased to between 60,000 and 100,000 in the Bering Sea population. The annual harvest of walrus consists of those taken by natives for food and ivory and those taken by trophy hunters. In 1970, native harvest amounted to 1,304 walrus while 23 additional animals were taken as trophies. Breakdown of the harvest by sex and age indicated 850 adult males, 374 adult females and 103 calves. The state of Alaska limits the harvest by natives dependent on walrus for food to five adult females or subadults of either sex per season. There is no limit on bulls and orphaned calves may be taken without contributing to the bag limit. The only major hauling ground regularly used by walrus in Alaska, Round Island, has been designated as a refuge with complete protection provided. Both H.R. 6554 and H.R. 10420 allow the taking of walrus for subsistence by Indians, Aleuts and Eskimos. Therefore, passage for these bills would prohibit the harvest of mature bulls for trophies; a harvest that accounted for only 23 animals in 1970.

In the early years of the 20th century, sea otter numbers were reduced to a few hundred scattered animals. Under a policy of complete protection established in 1911, numbers increased to the present population of between 40,000 and 50,000. The rate of population growth under uncrowded conditions is at least ten percent. In crowded populations there is only a four percent increase and a decrease may occur when numbers exceed the carrying capacity of the habitat.

In some areas, such as Amchitka Island, sea otter numbers have become too abundant and some mortality is occurring. Alaska has initiated a management program to remedy this situation. Experimental harvests are being conducted to determine the number of animals that can be taken annually and the best time of year from the standpoint of pelt primeness. An active transplant program has provided animals for Southeast Alaska, British Columbia, Washington and Oregon. Strict protection has been given to the transplanted animals as well as to established populations where numbers do not exceed carrying capacity of the habitat.

The Southern Sea Otter is recovering after being exploited by fur traders and poachers in the 18th, 19th and early 20th centuries. At present, this species is being protected by California law within the three-mile limit and by federal law on the high seas. Passage of H.R. 6554 or H.R. 10420 would not benefit sea otter beyond what is now being accomplished through state management programs.

The manatee has been a victim of past hunting, from both the commercial and sporting elements. Silting and pollution of coastal feeding grounds, inclement weather and predation have contributed to past population declines. Legal protection is now afforded the manatee throughout Florida, the area of its present distribution. The Everglades National Park is the largest sanctuary for the manatee in the country. There is no known evidence to indicate that the population is continuing to decline. Passage of H.R. 6554 or H.R. 10420 would provide no additional protection over that now afforded the animal.

Recent research on polar bear indicates that discrete populations occur off the Arctic coast of Alaska. These animals are harvested on a sustained yield basis with open seasons being limited to males or females without cubs. Population estimates, plus sex and age information obtained from harvested bears, indicate that from 200 to 300 animals can be taken annually without depleting the population. In 1970, the state of Alaska limited the number of polar bear permits to 300. Harvest information will continue to be recorded, and the permit numbers adjusted in accordance with the population status.

Some control of polar bear numbers is necessary because of their effects on other animal populations. Diet items of the polar bear include the Ribbon Seal. As indicated previously, Ribbon Seal numbers are down because of excessive sealing activities by the Russian fleet. Uncontrolled polar bear numbers could reduce this population even further. Protection offered by H.R. 6554 or 10420 would be adversely effecting one population while attempting to increase another.

Historically the Northern Fur Seal has been managed by the federal government. Under a controlled harvest program, fur seal have increased from about 200,000 in 1911 to a present population of an estimated 1.3 million. Harvests are limited primarily to bachelor bulls with females being taken only when it is necessary to maintain the population at the most productive level possible. Studies have shown that overcrowded fur seal rookeries can cause a 20 percent loss in annual production. The International Association recommends that the controlled harvest of Northern Fur Seals be continued to maintain populations in balance with the Pribilof Islands habitat and to maintain the existing North Pacific Fur Seal Treaty.

Because of the pelagic habits of most whales, porpoises and dolphins plus the fact that they spend considerable time in international waters, it is recommended that management responsibility for these animals, excluding the beluga and killer whales, be assumed by the federal government. Where not presently in effect, international treaties should be established with other nations that make use of cetaceans in order to initiate a controlled management program.

In summary, the International Association of State Game, Fish and Conservation Commissioners respectfully recommends that H.R. 10420 be amended so that it complements state management programs for marine mammals by assuming responsibility for protection and management of marine mammals in waters that are beyond the three-mile state jurisdiction, by reserving title and management authority to the states for marine mammals residing within state waters and by aiding the states in the design and implementation of needed marine mammals programs.

Mr. DINGELL. Does that complete your statement?

Mr. MCKEAN. Well, I think, Mr. Chairman and members of the subcommittee, that I have made my points.

We see no merit in H.R. 6554.

We think that H.R. 10420 when applied to those species that are primarily inhabiting territorial and international waters is a step in the right direction.

We feel by all means the resident animals that live immediately along the coast should continue to be subject to the protection and management of the respective States.

Mr. DINGELL. Mr. McKean, we certainly thank you for your very kind and helpful testimony.

The committee is grateful to you. You have come a great distance and we are sorry, indeed, that you had the indignity inflicted on you that you did and the Chair expresses his regrets on the particular point.

Mr. Pelly.

Mr. Pelly. Thank you, Mr. Chairman.

I want to say it is a great pleasure for me coming from the State of Washington to have my neighbor from Oregon here today.

I want to ask one question about the sea otters. You say they are getting along well, thriving, the ones that have been transplanted.

Mr. McKean. Yes.

Mr. Pelly. Do they go outside the 3-mile limit?

Mr. McKean. We have one man working full-time on sea otters, sea lions, and seals and we find very little evidence of these animals moving outside of the 3-mile limit.

They are closer to shore in the kelp beds and rocky points where they are protected and we see little.

In the case of sea otter, I do not believe any of them go outside the 3-mile limit.

We have not seen any evidence of this, Mr. Pelly.

Perhaps the gentleman from Alaska could elaborate on this. They have had much more experience with sea otters than we have. They are a difficult animal to observe.

I might explain our situation on the seals and the sea lions. We have about 1,800 harbor seals that are resident along the Oregon coast.

We have about 2,000 Steller's sea lions that breed and reside on our coast and so far we can tell there is very little change in these animals either up or down the coast.

There are an additional 4,000 California sea lions that come to our coast in the winter. They move up from California in the winter along our coast and are mixed in with the Steller's sea lions during the winter period.

With the authority that was granted by the legislature last year, the Oregon Game Commission has assigned complete protection to seals, sea lions, and sea otters, the full length of the coast.

Washington has taken a similar action.

We had one problem and I understand there was testimony at a previous hearing on this bill from a person who maintained that Oregon was unmercifully persecuting seals with a paid hunter and a bounty program and this type of thing.

For the sake of the record I would like to clear that matter up.

Back in 1935, because we do have a very aggressive gill net fishery in the Columbia River proper, back in 1935 the legislature for the gill net fishery established a program for control and regulation of seals in the vicinity of this gill net fishery.

It provides that license fees are paid by each gill net fisherman at the rate of $250 a year, each canner pays $50 a year, which contributes to a seal control fund.

The law authorizes the Oregon Fish Commission, which is a State agency responsible for management of food fish and commercial fish to pay bounties of not less than $5, and no more than $25 for the taking of seals within this prescribed area in the Columbia River.

It also authorizes the Fish Commission to employ a seal hunter who, during the open season, can assist in herding or controlling seals that are causing damage to the commercial fishery.

This program has been progressively reduced in size.

This year, the Fish Commission is not employing a seal hunter.

The bounty payment which is dictated by the statute has been reduced to $5.

Last year with a $5 bounty there were 19 seals offered for bounty.

This year there have been nine seals as of the end of August bountied since January 1.

I give you this data to illustrate to you that this is not a meaningful program in terms of control of the seal population.

The hunter we did have, he was employed last year, worked for 48 days. He killed 53 seals.

His operation was of a nature that he tries more to herd the seals away from the gill nets, rather than to see how many seals he can take.

You can see with taking only one seal a day he was not making any very large impact on the seal population.

This explanation I can give you in much more detail, give you the records back to the year one on it if you are interested, but I bring this out to point out to you that this is a program designed to protect the commercial fisheries.

The problem is not one of predation on the wild fish. It is the problem of the seals getting into the nets when they are after a captured salmon and they do destroy the nets and create other problems for the fishermen trying to retrieve his net and his fish.

I offer that as an explanation for the testimony you received on that matter.

Mr. Pelly. I understand that the sea lions do not stay in the 3-mile limit, but go out and the fishermen have problems with them 6 and 10 miles off the shores or northern California.

Is it not a fact that it would take an international cooperative arrangement in order to protect marine mammals out there?

Mr. McKean. California does permit the commercial fishermen to control seals and sea lions when they are causing damage to their gear.

I am not too knowledgeable about that problem, but conceivably this would be an area that we could use some help in.

Mr. Pelly. Well, I think we have a pretty fine cooperative arrangement on migratory birds where the number of Federal enforcement personnel are inadequate so they just deputize the state protection offices and work together very closely.

I assume that under language which you may suggest for sections 106 and 109, we could work out protection and conservation in connection with joint arrangements.

Mr. Lenzini. Mr. Pelly, if I may at this point, we think the program utilized with respect to the fish is more in point than the migratory birds.

In their 1965 legislation involving anadromous and Great Lakes fisheries, the rationale of the Congress there was that these fish are in international waters, in territorial waters and the streams of the States and because of that a national State and national cooperation would be necessary.

At the same time when that program is employed it does not preempt the State from setting regulations of its own on salmon within the States.

We think that something comparable to this might well be useful, but we think that something comparable to the migratory bird convention in which the final word does rest with the Secretary of the Interior may not be the type of approach.

Mr. PELLY. I can see the point you are making, that there are differences between States and their problems with regard to marine mammals and, therefore, you would like to provide for flexibility so that one State could do like Oregon does now, protect your sea lions and California allows for control by the fishermen.

Mr. LENZINI. That is correct. I think the need is flexibility.

I think that is the key word.

As H.R. 10420 presently stands, despite the presence of section 109, I do get the clear implication that it is fine to have a cooperation with the States so long as the Secretary of the Interior will tell them what to do, in effect, and so this is not the kind of cooperation I think that would be desirable.

A situation where the State and Federal government could be partners in this thing would be desirable.

Mr. PELLY. Thank you, Mr. Chairman.

Mr. DINGELL. Thank you, Mr. Pelly.

Mr. Kyros?

Mr. KYROS. Thank you, Mr. Chairman. I have one or two questions.

May I ask if you have representatives here in Washington?

Mr. MCKEAN. Yes.

Mr. KYROS. Do any of your Washington representatives represent the Fouke Fur Co?

Mr. MCKEAN. The only Washington representative that the International Association has is Mr. Lenzini, our legal counsel and he does not represent them to my knowledge.

Mr. LENZINI. I am not a witness, Mr. Kyros, but our firm does represent the International Association of Game, Fish, and Conservation Commission.

We have also for a number of years represented the Fouke Co.

Mr. KYROS. Let me quickly ask you a question about the polar bear. Time is short and I am sure the chairman wants to question other witnesses.

The polar bear is still being hunted by airplane in Alaska. Is that right?

Mr. MCKEAN. It is my understanding that the State of Alaska has prohibited this.

You have the Alaskan representative here and it would be better to let him answer that question, I am sure.

Mr. KYROS. You do not know then, about polar bear hunting in Alaska?

Mr. MCKEAN. I have some data on polar bear hunting in Alaska. Your specific question as to whether or not persons are permitted to hunt polar bear with an airplane I would prefer to defer to the representative from Alaska.

Mr. KYROS. All right. Do you know how many bears are killed legally in Alaska each year?

Mr. MCKEAN. I would prefer to have the representative from Alaska, Mr. Burns, answer that question.

The data I have on this is rather general and he could give you specifics and I am sure that this would be much better than me attempting to answer your question.

Mr. Kyros. Thank you very much, Mr. McKean.

Thank you, Mr. Chairman.

Mr. Dingell. Mr. Keith?

Mr. Keith. No questions.

Mr. Dingell. Gentlemen, the committee is grateful to you. We thank you. I have great respect and affection for the international and its membership, even though I do not always agree with them, and I have a very high regard for Mr. Lenzini with whom I have worked on a number of pieces of good legislation.

I thank you for your presentation here today.

The Chair observes that the representatives of the Sierra Club have been unable to be with us today and have requested additional time for filing of statements.

Without objection that is directed and at the appropiate place in the record they will be inserted.

Mr. Pelly. Mr. Chairman, I have received a letter from the director of the Washington State Department of Game describing the protection currently provided to marine mammals under State law in Washington. If it is appropriate at this time, I ask that it be inserted in the hearing record at this point.

Mr. Dingell. Without objection, it is so ordered.

(The information follows:)

Department of Game,
Olympia, Wash., September 3, 1971.

Hon. Thomas M. Pelly, M.C.,
House of Representatives,
Washington, D.C.

Dear Congressman Pelly: It is my understanding hearings have been scheduled before the Subcommittee on Fisheries and Wildlife Conservation on September 9 concerning H.R. 10420 and H.R. 6554. I would appreciate the opportunity to comment on these bills.

H.R. 10420 does, in effect, give the Department of Interior wildlife control over resident wildlife within state jurisdiction. I feel very strongly this will result in another open conflict between state wildlife agencies and federal government and that no useful purpose will be served by superimposing the Department of Interior as an authority over state wildlife. It can only result in duplication and confusion to the detriment of the resources.

I concur that the federal government should have authority over marine mammals which spend most of their lives beyond the three-mile limit. This includes most species of whales, as well as fur seals. In that these mammals are, for the most part, in international waters, the federal government would be in a position to regulate them when it pertains to citizens of the United States, as well as enter into international agreements for their overall protection and management.

In the State of Washington, by State law, marine mamals are under the management of the Washington State Department of Game. Management and research of these mammals are carried out by the State under provisions of State law and rules and regulations of the State Game Commission. At the present time, marine mammals are given complete protection in this State. The Game Commission has issued six permits for the taking of killer whales for display purposes, and three have been taken this year. Since the Department of Game has been regulating the taking of killer whales, there have been no losses of whales by people engaged in their trapping.

Sea lions and harbor seals, which are resident in Puget Sound and along the Washington coast, are under complete protection by the Department of Game. We have received no criticism of our regulation of these animals. Several years ago, sea otter were reintroduced to their historical range along the Washington coast. This reintroduction was done by the Department of Game and appears, at this time, to be a successful reintroduction that will again establish this unique and interesting animal in its former habitat. Protection of this resource has been carried out by the Department of Game.

I would strongly recommend the management of marine mammals within the three-mile limit be retained as the responsibility of the various states. If there is a feeling by Congress that some states have not faced up to the responsibility of this management, I would suggest that Congress may desire to give them a period of time, such as three years, to assume this responsibility. If they do not do it within this period of time, I would then not object to the federal government establishing management programs in these particular areas until such time as the states are ready to assume their obligation. I am presently not aware if there are any states that have not assumed this responsibility.

It is also my feeling the Department of Interior has an outstandingly good record of managing the Alaska fur seal. This is done under international treaty and is, without question, a classic example of how good management of wildlife resources can sustain and increase the resources. I would hope that any federal legislation would recognize and continue this management program on a proper scientific basis.

For your information, I am enclosing a copy of the most recent State law and Game Commission regulation on marine mammals in the State of Washington. Thank you for your consideration.

Very truly yours,

CARL N. CROUSE, *Director.*

Enclosures.

DEPARTMENT OF GAME,
Olympia, Wash.

KILLER WHALE PERMIT

Namu, Incorporated, is hereby authorized to capture killer whales and remove from the wild a total of six (6) in the period covered by this permit, subject to the following conditions.

1. Whales can be captured or corralled only in nets, and there shall be no purse rings or purse lines on said nets. In addition, they can be taken where naturally or accidentally stranded.
2. No animal shall be taken smaller than 8 feet total length, or larger than 16 feet total length.
3. The permittee must have available an adequate marine aquarium tank in which to condition and hold whales taken, which has been approved by the Department of Game. He shall also have the services of a competent marine mammal veterinarian.
4. The Game Department, Game Management Division, in Olympia, or a Regional Supervisor, shall be notified promptly when any whales are being held in a net or nets.
5. Animals contained in nets shall be surveyed and sorted promptly without undue delay, and no animals shall be confined in nets for more than ten (10) days.
6. Within five (5) days after taking a killer whale, the permittee shall pay to the Game Department the sum of $1,000.00 as the fee for taking such whales prescribed by law.
7. This permit is valid from the date of issuance to March 31, 1972.
8. The Director of Game reserves the right to cancel this permit at any time for cause or for violations of these provisions in addition to any criminal penalties prescribed by law.

Issued this 20th day of August, 1971.

CARL N. CROUSE, *Director.*

MANAGED MARINE MAMMALS PROTECTED

It shall be unlawful to kill, injure, or capture any mammals of the order Cetacea including but not limited to whales and porpoises or of the suborder Pinnipedia including but not limited to seals and sea lions known as managed marine mammals, except under a permit issued by the Director of Game or his authorized representative: *Provided,* That this section shall not apply to hair seals and sea lions which are threatening to damage or are damaging commercial fishing gear being utilized in a lawful manner or when said mammals are damaging or threatening to damage commercial fish being lawfully taken with commercial gear.

CERTIFICATION OF ENROLLED ENACTMENT IN THE LEGISLATURE OF THE STATE OF WASHINGTON

HOUSE BILL NO. 106, CHAPTER 166, LAWS 1971, 1ST EX. SESSION—EFFECTIVE DATE: AUGUST 9, 1971

The House concurred in the Senate amendments and passed the bill as amended May 6, 1971: Yeas 90; Nays 0.

CERTIFICATE

I, Malcolm McBeath, Chief Clerk of the House of Representatives of the State of Washington, do hereby certify that the attached is enrolled House Bill No. 106 as passed by the House of Representatives and the Senate on the dates hereon set forth.

MALCOLM MCBEATH, *Chief Clerk.*

Read first time January 14, 1971, and referred to Committee on Natural Resources and Ecology.

AN ACT Relating to species of fish and wildlife; amending section 77.16.040, chapter 36, Laws of 1955 as amended by section 1, chapter 75, Laws of 1961 and RCW 77.16.040; adding new sections to chapter 77.08 RCW; adding a new section to 77.12 RCW; adding a new section to chapter 77.16 RCW; adding a new section to 77.32 RCW; and prescribing penalties.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

New section.—Section 1. There is added to chapter 77.08 RCW a new section to read as follows:

As used in this title or in any rule or regulation of the commission "endangered species of fish and wildlife" shall mean those species of fish and wildlife designated by rule or regulation of the commission as seriously threatened with extinction. Such rules or regulations of the commission shall include, but not be limited to, endangered species as so designated by the secretary of the interior on the date this 1971 amendatory act shall take effect: Provided, That the commission may amend such rules and regulations to exclude any species of fish and wildlife from designation as an endangered species if the commission determines that the species is no longer endangered.

New section.—Sec. 2. There is added to chapter 77.08 RCW a new section to read as follows:

As used in this title or in any rule or regulation of the commission "deleterious exotic species of fish and wildlife" shall mean these species of fish and wildlife designated by rule or regulation of the commission as dangerous to the environment or native species of fish and wildlife of the state of Washington.

New section.—Sec. 3. There is added to chapter 77.16 RCW a new section to read as follows:

Except as authorized by permit or license lawfully issued by the director, or by rule or regulation of the commission, it shall be unlawful for any person to bring into the state, have in his possession within the state, have in his possession for sale or with intent to sell or to expose or offer for sale, or to sell, or to barter for, or to exchange, or to buy, or to have in his possession with intent to ship, or to ship any deleterious exotic species of fish or wildlife. It shall further be unlawful for any common or contract carrier knowingly to transport or receive for shipment any such deleterious exotic species of fish or wildlife.

Any person violating this section shall be guilty of a gross misdemeanor and upon conviction thereof shall be punished by a fine of not less than two hundred fifty dollars and not more than one thousand dollars or by imprisonment in the county jail for not less than thirty days and not more than one year or by both such fine and imprisonment.

Sec. 4. Section 77.16.040, chapter 36, laws of 1955 as amended by section 1, chapter 75, laws of 1961 and RCW 77.160.040 are each amended to read as follows:

Except as authorized by permit or license lawfully issued by the director, or by rule or regulation of the commission, it shall be unlawful for any person to have in his possession for sale or with intent to sell, or to expose or offer for sale or to sell or to barter for, or to exchange, or to buy, or to have in his possession with intent to ship, or to ship, any game animal, game bird (or)) game fish, *or endangered species of fish or wildlife* or any part thereof *or any article made in whole or part from the skin, hide, or other parts of any endangered species of fish or wildlife.* It shall further be unlawful for any common or contract carrier knowingly to transport or receive for shipment any such game animal, game bird, or fish, *or endangered species of fish or wildlife* or any part thereof *or any article made in whole or part from the skin, hide, or other parts of any endangered species of fish or wildlife:* PROVIDED, That nothing contained in this section shall prohibit any person from buying, selling, or shipping any lawfully tagged or sealed game animal, game bird, or game fish purchased from a licensed game farmer.

Any person violating this section shall be guilty of a gross misdemeanor and upon conviction thereof shall be punished by a fine of not less than two hundred fifty dollars and not more than one thousand dollars or by imprisonment in the county jail for not less than thirty days and not more than one year or by both such fine and imprisonment.

New Section.—Sec. 5. There is added to chapter 77.08 RCW a new section to read as follows:

As used in this title or any rule or regulation of the commission "managed marine mammals" shall include all mammals of the order cetacea and the suborder pinnipedia including but not limited to whales, porpoises, dolphins, seals and sea lions.

New section.—Sec. 6. There is added to chapter 77.12 RCW a new section to read as follows:

The commission shall from time to time, adopt, promulgate, amend, or repeal and enforce reasonable rules and regulations governing the time, place, and manner or prohibiting the capture or taking of managed marine mammals, the quantities, species, sex and size that may be captured or taken, and the transportation, sale, and confinement of managed marine mammals.

The commission may, acting through the director, issue permits for the taking or capture of managed marine mammals for scientific research, display, or propagation purposes: PROVIDED, That a managed marine mammal may be taken without permit when it constitutes a threat to human life or is causing substantial damage to private property.

New section.—Sec. 7. There is added to chapter 77.32 RCW a new section to read as follows:

It shall be unlawful for any person to attempt to capture or to capture killer whales, Orcinus orca, without first having procured from the commission a permit to be known as a killer whale permit. The fee for retaining a killer whale shall be one thousand dollars for each such whale: PROVIDED, That the commission may waive the permit for any organization capturing a killer whale for scientific purposes and not for profit. Said fees shall be credited to the general fund.

Passed the House May 6, 1971.

——— ———.
Speaker of the House.

Passed the Senate May 4, 1971.

JOHN A. CHERBERG,
President of the Senate.

Approved May 20, 1971.

DANIEL J. EVANS,
Governor of the state of Washington.

The next witness is Mrs. Roger Stevens.

Mrs. Stevens, we are happy to welcome you to the committee for such statement as you choose to give.

If you have anyone with you that you would like to have at the witness table it would be quite appropriate to bring them forward.

Please identify yourself fully and any of your associates for purposes of the record.

STATEMENT OF CHRISTINE STEVENS, SECRETARY, SOCIETY FOR ANIMAL PROTECTIVE LEGISLATION, WASHINGTON, D.C.

Mrs. STEVENS. Thank you, Mr. Chairman. I am Christine Stevens, Secretary for the Protection of Sea Mammals.

Mrs. Barbara Gould has just brought to the members of the committee copies of an article on the humpback whale which appeared in the

August 13 issue of Science which, as I am sure you all know, is the most prestigious scientific journal in existence.

At the same time you will find a copy of the front pages of the Washington Star in which the story about the whales being stranded and saved by teenagers appear.

Because these two publications are so very different in character, but so close together in the time of their publication I felt it was particularly interesting for the committee to have them available, the one strictly scientific, the other emotional, if you will, but very factual.

In the past, people have been quite frightened of whales and very much disinclined to assist them when they are stranded as we know happens from time to time.

Mr. Kyros (presiding). Without objection they will be made a part of the record at this point.

(Documents referred to follow:)

13 August 1971, Volume 173, Number 3997 **SCIENCE**

Songs of Humpback Whales

Humpbacks emit sounds in long, predictable patterns ranging over frequencies audible to humans.

Roger S. Payne and Scott McVay

During the quiet age of sail, under conditions of exceptional calm and proximity, whalers were occasionally able to hear the sounds of whales transmitted faintly through a wooden hull (*1*). In this noisy century, the widespread use of propeller-driven ships and continuously running shipboard generators has made this a rare occurrence. Not until World War II, when research in sonar and antisubmarine warfare fostered major efforts and facilities for listening underwater, did it become generally known that many species of whales are vocal. At this time the first whale recordings were made.

Of the 25 or more species of whales that have been recorded, most are Odontocetes (toothed whales). Their sounds fall into three rough categories: short broad-band clicks, longer narrow-band squeals, and complex sounds (*2*). The complex sounds usually consist of rapidly repeated clicks. Most authors assume that both clicks and complex sounds serve principally for echolocation and that whistles are primarily for communication. However, there is little direct proof of either assumption (*2*). There seems to be no evidence that the sort of sound-patterning with which this article is concerned occurs among Odontocetes, but there are good reasons to suppose that it might.

Mysticete (baleen whale) sounds are varied and complex, consisting, for the most part, of lower and longer sounds than have yet been recorded from Odontocetes. The fin whale (*Balaenoptera physalus*) makes very low moans (at a fundamental frequency around 20 hertz) that are monotonously repeated in a regular pattern (*3, 4*). To date, the most vocal Mysticete that has been studied is the humpback whale (*Megaptera novaeangliae*).

Humpback whales, like sperm whales, are found in all oceans of the world. However, while the sperm whale has been, and remains, the most numerous large cetacean on earth, the humpback has never been very plentiful. The principal concentration of humpback whales is in the Antarctic Ocean (*5*), where they have probably never numbered more than 34,000 at any one time. However, the intense whaling of the past 40 years has reduced the number of humpbacks there to no more than a few percent of the original numbers.

The International Whaling Commission has called for full protection of the humpback. Yet, even if this moratorium is honored, the number of humpbacks in the Southern Hemisphere seems dangerously low, perhaps too low to provide the pool of genetic variability needed to survive the next natural or man-made crisis.

Though they have also been seriously overhunted in the Northern Hemisphere, small herds of humpbacks appear in a few areas during natural periods of concentration (that is, for feeding, migration, delivering young, and the like). The waters near Bermuda are well known as such an area. Humpbacks are found to the south of Bermuda in considerable numbers during their annual spring migration from winter breeding grounds in the south to summer feeding grounds in the north (*2, 3, 6*). It is from studies of the herd sojourning in these waters that we have become aware of what we believe to be the humpbacks' most extraordinary feature—they emit a series of surprisingly beautiful sounds, a phenomenon that has not been reported previously in more than a passing way. We describe here one part of the humpbacks' sonic repertoire—a long "song" that recurs in cycles lasting up to 30 minutes and perhaps longer.

History of Recordings

The first recordings of humpback whales that we know of were obtained in 1952 by Schreiber (*7*) from a U.S. Navy hydrophone installation on the underwater slope of Oahu, Hawaii. Although Schreiber did not identify the species, Schevill (*2*) subsequently recognized the sounds recorded by Schreiber as coming from humpbacks. Most of the sounds that we describe here were recorded by Frank Watlington of the Palisades Sofar Station at St. David's, Bermuda. Watlington recorded from a hydrophone installation, similar to Schreiber's, deep in the North Atlantic on the slope of Bermuda.

Humpback whales may winter near Bermuda as well as pass nearby during their spring migration to northern Atlantic waters (*8*). The fortunate location of the broad-band hydrophones used by Watlington made it possible for him to record humpback sounds during spring migrations from 1953 to 1964. The broad-band hydrophone from which all of the recordings analyzed here were made was in about 700 meters of water, about 3 kilometers southeast of the entrance to Castle

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Dr. Payne is assistant professor of physiology and animal behavior at Rockefeller University, New York, New York, and research zoologist, New York Zoological Society. Mr. McVay is an administrator at Princeton University, Princeton, New Jersey.

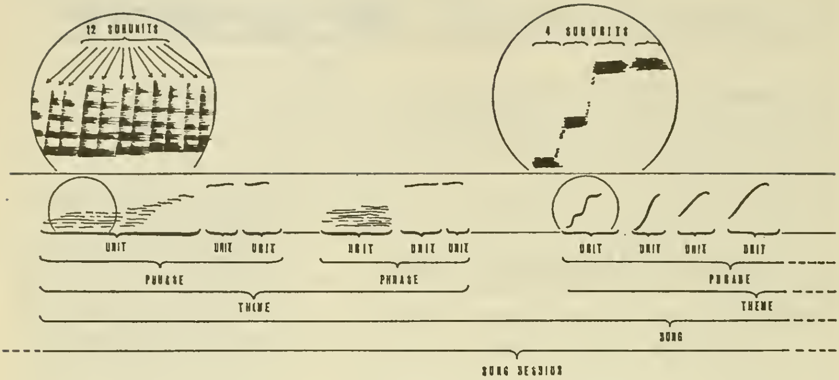


Fig. 1. Diagrammatic sample of whale spectrograms (also called sonagrams) indicating terminology used in describing songs. Frequency is given on the vertical axis, time on the horizontal axis. The circled areas are spectrograms that have been enlarged to show the substructure of sounds which, unless slowed down, are not readily detected by the human ear.

Harbour. Watlington's hydrophone-preamplifier combination was flat in response (± 3 decibels) from 500 hertz to 10 kilohertz, with an amplitude loss of 6 decibels per octave below 500 hertz. A cable from this hydrophone extended to Watlington's office, where the sounds were taped by a Magnecorder, type PT 6-AH, operating at 19.1 centimeters per second. Thus, when whales uttered sounds within range of the hydrophone, Watlington was able to make recordings free of the usual shipboard and cable noises, with the assurance that the whales were not being disturbed by the presence of an observer.

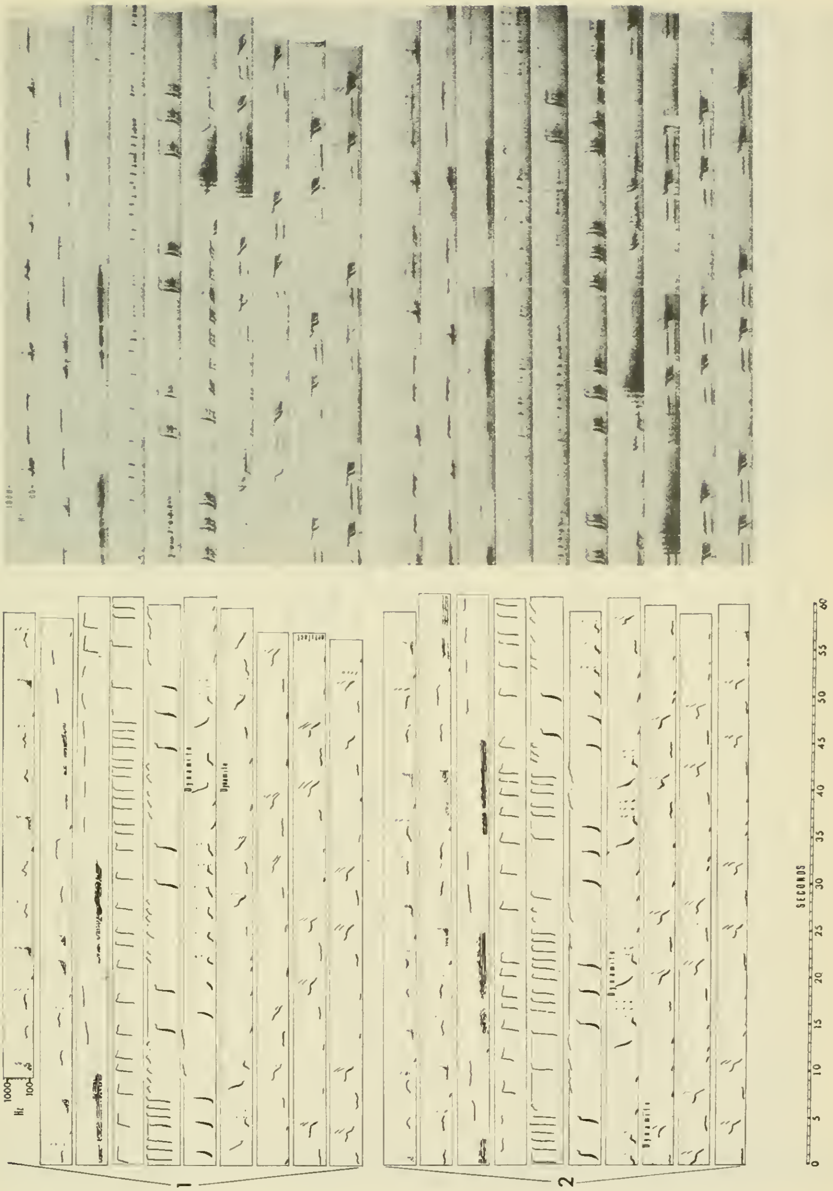
Evidence that Sounds Are Correctly Ascribed to Humpbacks

Schevill and Watkins (*9*), apparently referring to some of the same sounds from the same Watlington tapes that we have described here, have already pointed out that the sounds come from humpback whales. Additional evidence that this is true comes from observations by Watlington. By using binoculars, he was able, on several occasions, to observe whales blowing in the vicinity of the hydrophones during a recording of "whale sounds." On rare occasions, Watlington was able to verify that these whales were humpbacks by noting the prominent white flippers when the whales breached. However, such observations did not accompany all of the recordings analyzed in detail here.

In addition to the tapes provided by Watlington, we have taken into consideration several hundred hours of recordings made by Payne, who has studied humpback sounds and behavior off Bermuda during the past five springs (1967 to 1971). Payne and Payne (*10*) have reviewed many of these tapes by noting the form of the sounds in a simple shorthand and, in some cases, by spectrographic analysis. All of our general conclusions about songs are based on considerations of both the Watlington and Payne recordings, but all spectrographic analyses shown here are from the Watlington recordings.

The evidence that Payne's recordings come from humpbacks is as follows: (i) when the sounds (such as those to be analyzed here) that were heard were loud and whales were visible in the area, the whales proved in each instance to be humpbacks; (ii) interposition of a motorboat's wake between identifiable, nearby humpbacks and a hydrophone reduced the intensity of the sounds being recorded (the bubbles in the wake presumably acted as a partial screen); (iii) unfavorable orientation of a hydrophone array in relation to a visible group of humpbacks reduced the intensity of the sounds recorded (one occasion); (iv) pauses in an exceptionally loud series of sounds were correlated with blowing of a nearby humpback at the surface (several occasions) and with a breaching humpback (one occasion); and (v) while drifting in a boat on a very calm sea, Payne went near a pair of clearly identifiable humpbacks and heard one whale emit a complete sequence of sounds, of the sort described here,

Fig. 2. Here, as well as in Figs. 3 to 5, the right side shows a machine spectrographic analysis of two complete songs (labeled 1 and 2). Frequency and time scales are indicated. The left side is a tracing of the spectrograms on the right, emphasizing loud notes of the song and leaving out noise, echoes, distant whales, and all harmonics (except in the case of pulsive sounds, which depend on their harmonic structure for the effect they have on the human ear). The gap between spectrographs of songs 1 and 2 is designed to make the individual songs clear and is not indicative of any gap in time. This figure shows two songs of whale I, recorded 28 April 1964 by F. Watlington of the Palisades Sofar Station, St. David's, Bermuda. Note dynamite blasts occurring in pairs every 10 minutes. These two songs are part of a series of seven from this whale, and by comparison with earlier songs, lacking the dynamite blasts, we find that the blasts do not have any detectable effect on the whale's rendition of its song. We have other examples of whales singing, without change in the form of the song, right through loud underwater sounds generated by other research activities in the area. The dashed line at about 500 hertz represents propeller noise from a passing freighter. Echoes are prominent, making louder sounds appear three times on the original spectrograms.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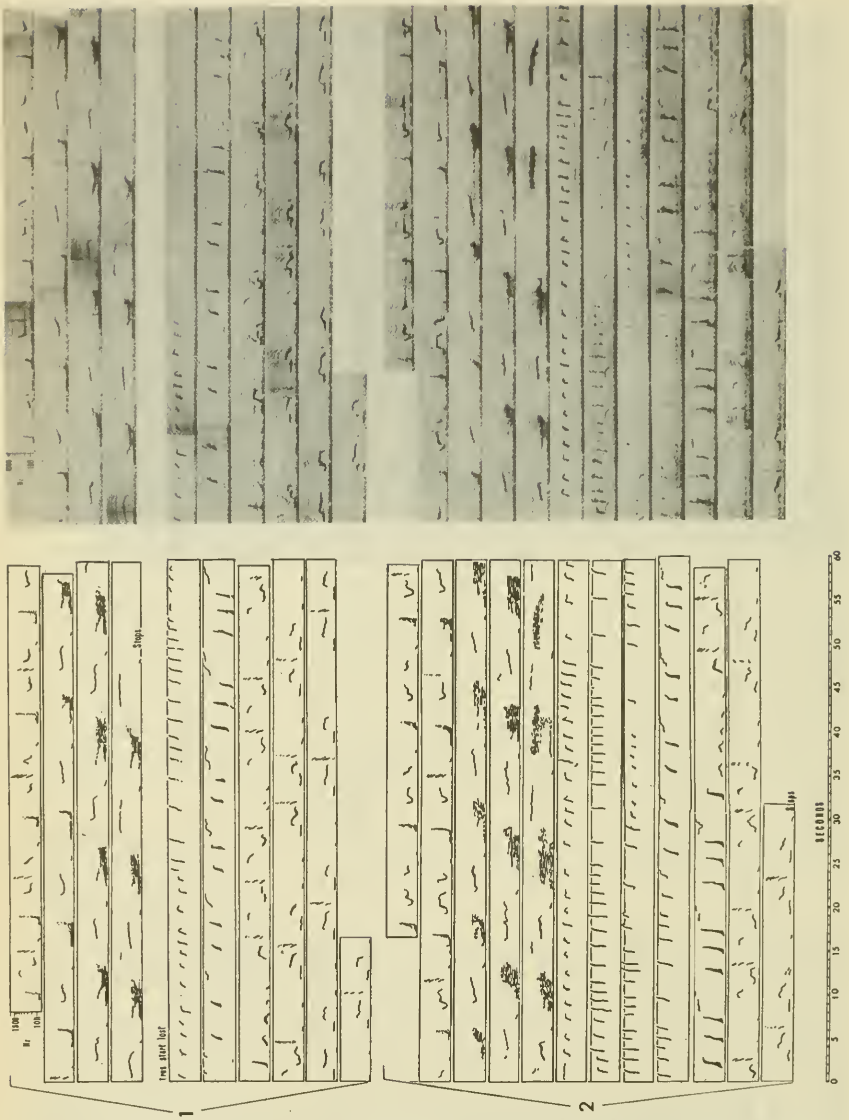

Fig. 3. Whale II, recorded by Watlington in spring, 1963. At the end of line 4 the whale stopped briefly, and a small bit (just after it started singing again, line 5) was not taped. Note, however, that the whale resumed singing in proper sequence of the song. Sounds of a second and more distant whale are prominent on the spectrographic record midway through song 2. At the end of the second song, whale II stopped singing—one of our few examples of the end of a song.

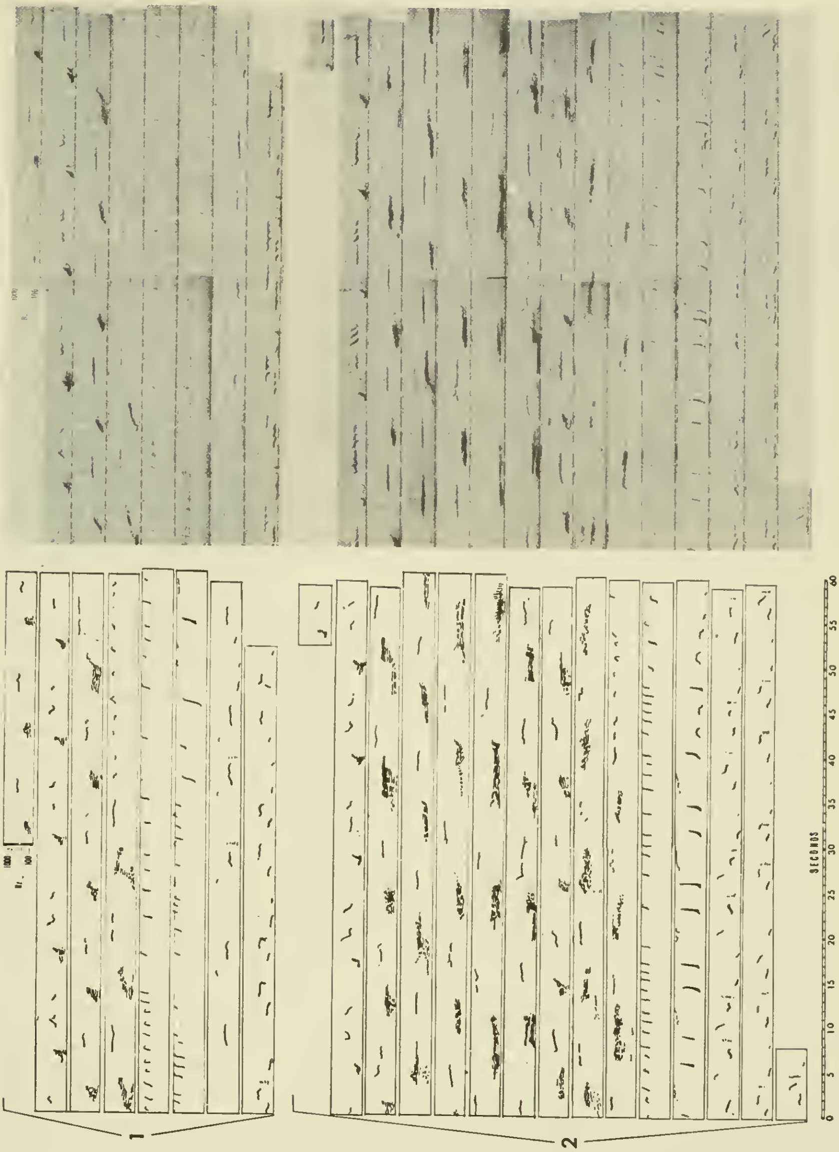

Fig. 4. Whale III, recorded by Watlington in May 1963. The first song is much shorter than the second, which begins with an unusually long first theme.

while the pair were submerged. He was using no hydrophone, the sounds coming directly through the bottom of the boat. Observations such as these have removed most of our doubts that what we have been analyzing are humpback sounds; yet the great variability of the sounds still leaves us with residual reservations about ascribing to one species (the humpback) *all* of the sounds we are analyzing here.

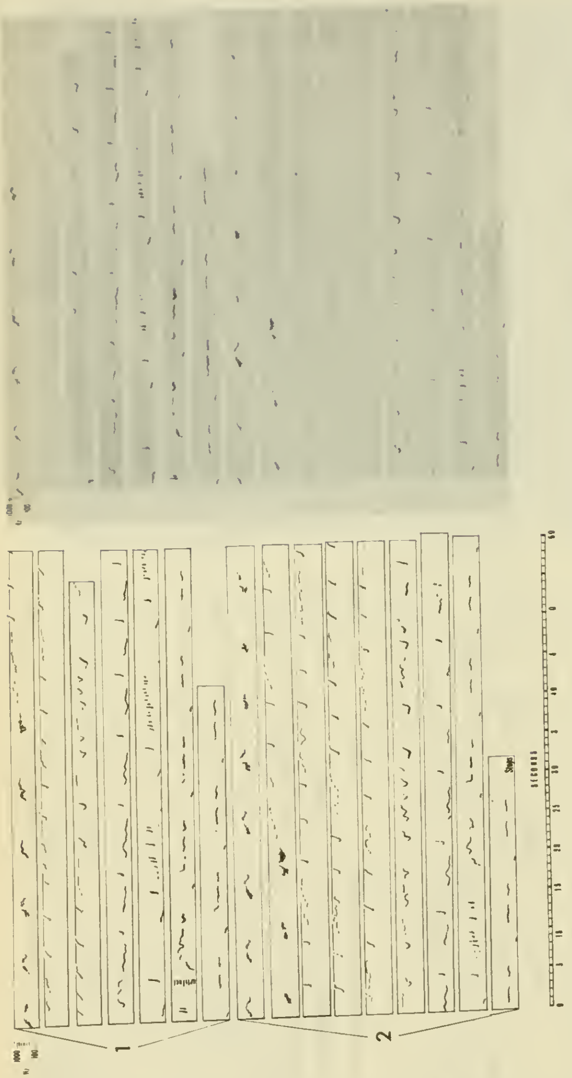

Fig. 5. Whale IV, recorded by Watlington 12 April 1961. This is an example of a different song type (type B) from the previous three examples. The poor signal-to-noise ratio of the recording caused the spectrograms for the highest frequency, lowest intensity signals to be quite faint. At the end of song 2, the whale stopped singing. This was actually the fourth and last consecutive song Watlington recorded from this whale on this occasion, and thus also indicates a true ending.

Analysis of Humpback Sounds

On first hearing humpback vocalizations, one has the impression of an almost endless variety of sounds. Spectrographic analysis shows, however, that all prolonged vocalizations occur in long, fixed sequences and are repeated with considerable accuracy every few minutes. Because one of the characteristics of bird songs is that they are fixed patterns of sounds that are repeated, we call the fixed patterns of humpback sounds "songs." The principal differences between bird and humpback songs are that bird songs usually last for a few seconds, while humpback songs last for minutes; and one song of a bird is usually separated from the next by a period of silence, whereas humpback songs are repeated without a significant pause or break in the rhythm of singing.

The term "song," as used in discussions of sounds made by animals, has received considerable attention. In one case, no fewer than nine pages of a comprehensive glossary by Broughton (see *11*) are devoted to a detailed discussion of the many uses, misuses, and meanings of "song." Broughton finally arrives at three meanings, or categories of meanings, of the term "song," which he characterizes as *sensu latissimo*, *sensu stricto*, and *sensu strictissimo*. The median of these three (*sensu stricto*) is defined as "a series of notes, generally of more than one type, uttered in succession and so related as to form a recognizable sequence or pattern in time." By that definition (and by Broughton's other two as well), we feel justified in using the term "song" to describe repetitive sound patterns of humpback whales.

In describing the humpback whale song, we will adhere to the following designations. The shortest sound that is continuous to our ears when heard in "real time" will be called a "unit." (Some units when listened to at slower speeds, or analyzed by machine, turn out to be a series of pulses or rapidly sequenced, discrete tones. In such cases, we will call each discrete pulse or tone a "subunit.") A series of units is called a "phrase." An unbroken sequence of similar phrases is a "theme," and several distinct themes combine to form a "song." Finally, a series of songs within which there is no pause longer than 1 minute is termed a "song session." Some sessions last for hours.

In summary: subunit < unit < phrase < theme < song < song session. A diagram is shown in Fig. I.

The shortest complete humpback song we have yet timed lasts 7 minutes, and the longest more than 30 minutes. Since these two songs are quite different in form and were recorded in different years, they are probably from different whales. But even the same whale, repeating its own song, will show different cycle lengths during a song session. For example, two successive songs of whale III (Fig. 4) last 7 minutes and 12½ minutes, respectively. In spite of such variations in length, we call these vocalizations "songs" because they differ primarily in the number of times the phrases of a given theme are repeated. In our sample, the sequence of themes is invariable, and no new themes are introduced or familiar ones dropped during a song session. Except for the precise configuration of some units and the number of phrases in a theme, there is relatively little variation in successive renditions of any individual humpback's song. Yet, although we will not deal with it in detail here, we must not overlook this variation, for it is obviously an important feature of the songs.

Besides the variation among successive songs of one individual, there are often large differences among songs sung by different individuals. This raises the question of whether there is a single, species-specific song pattern, or whether each humpback sings its own pattern. All songs of humpback whales that we have heard consist of the following three main sections: (i) trains of rapidly repeated pulses that often alternate with sustained tones; (ii) many short, high-frequency units, most of which abruptly rise in frequency; and (iii) lower, more sustained notes that are monotonously repetitious in rhythm and frequency and contain many units that fall in frequency. We feel that these three sections constitute a very general, species-specific song pattern.

Within this very general framework, the many variations sung by individuals seem to sort naturally into several distinct categories or song types, the number of which is still unclear. In all song sessions in our sample, each whale adheres to its own song type throughout the session. We consider here two song types (designated as types A and B). As will become clear, these two song types have strong similarities, even though they depart in form markedly at one point.

We include three examples of type

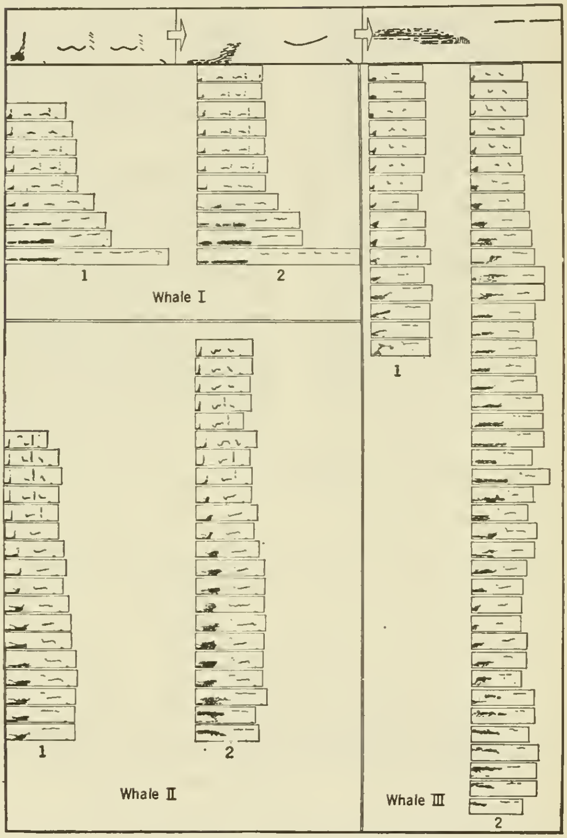

Fig. 6. Theme 1. In this figure, as in Figs. 7 to 9, the enlarged top view shows diagrammatically a typical example of the phrases of which the theme is composed. Beneath, at reduced scale, are tracings of all phrases in each of two songs of whales I, II, and III. No phrases or other sounds are omitted or changed in order, and no time is left out. Observe, by referring to the enlarged top view, the slow evolution of this phrase. Note that the short pulse train becomes longer and higher in frequency with each repetition. We have aligned each phrase so that each moment of onset of sound is brought out to the left edge of the column. The sequence of phrases within the theme reads from top to bottom. Note that in song 1 of whale III, theme 1 contains more than twice as many phrases as does theme 1 of song 2 of the same whale.

A (whales I to III, Figs. 2 to 4) and one of type B (whale IV, Fig. 5). The recording of whale IV was done in 1961 and is the only recording we have from that year. Hence, our treating whale IV's song as representative of a type is an assumption; the possibility remains that this whale was aberrant.

A clear example of song type A is shown in Fig. 2 (whale I). This figure shows sound spectrograms, at a greatly reduced scale, for a complete pair of songs. The pair of songs was lifted from the middle of a continuous song session that contained at least seven songs (there may have been more, but Watlington's tape ran out). The frequency scale in all spectrograms shown here is logarithmic, since that is roughly the way in which the human ear interprets frequency. Had we wished to define precisely the frequency components of each unit, we might have favored a linear frequency display, but our chief purpose was to facilitate comparisons between spectrograms and the sounds they depict. The spectrograms in Figs. 2 to 5 were made by the exceedingly tedious process of extracting successive 9.6-second segments of tape-recorded sounds and analyzing them on a Kay spectrograph (model 6061B), being careful that no time on the tapes was omitted. The effective filter bandwidth was 60 hertz, and the highest "real time" frequency seen by the spectrograph under these circumstances, 2000 hertz.

Once the spectrograms were made, the hundreds required for each song were carefully matched, glued to large sheets of paper, and photographically reduced. Because the ocean is a noisy place (some of the tapes include wave noise, ship noise, dynamite blasts, and distant whales), and because loud sounds in the water are invariably followed by trains of echoes, we have isolated the whale sounds by tracing them on a separate sheet, thus omitting echoes and noise. Our tracings also exclude harmonics, since they are of little or no consequence in establishing sequences and are often spuriously generated by the spectrograph (*12*). The only sounds for which we have traced harmonics are brief, pulsive sounds that, to a human listener, are atonal (even when slowed down) and must therefore have a rich harmonic structure. The tracings, of course, fail to show variations in darkness of line—the only indication of intensity that spectrograph machines provide. However, darkness of line, even on the spectrograms shown here, can only be relied on to reveal relative intensities within any particular 9.6-second sample, since the level of input to the spectrograph machine was often adjusted between successive samples in order to obtain the least distorted rendition. However, a thick line indicates ocean reverberations, in some cases, thus denoting a loud sound.

From inspection of the spectrograms, it is immediately obvious that phrases in most themes are repeated several times before the whale moves on to the next theme. As mentioned above, we find it true of all song types in our sample that, although the number of phrases in a theme is not constant, the sequence of themes is. (For example, the ordering of themes is A,B,C,D,E . . . and not A,B,D,C,E . . .). We have no samples in which a theme is not represented by at least one phrase in every song, although in rare cases a phrase may be uttered incompletely or in highly modified form (compare phrase 4 in the first and second songs of whale III, Fig. 8). Figures 6 to 9 compare themes in song type A as sung by what we assume to be different whales, since the songs were recorded at different times. In this analysis, all phrases within any given theme are shown for each of

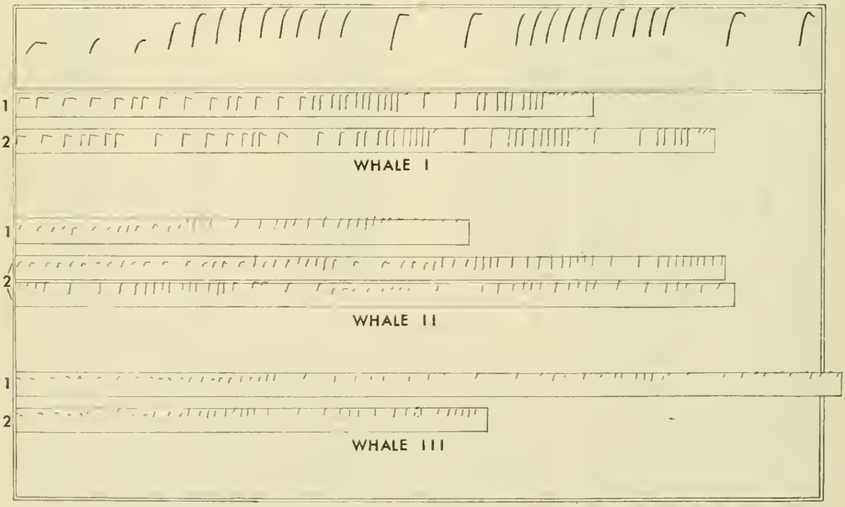

Fig. 7. Theme 2 consists of one long phrase. Note that, in the second song of whale II, this theme is three times as long as in song 1. The interunit spacing of this theme also varies considerably from song to song of the same whale.

two songs sung by each of three whales (I, II, and III). No sounds have been omitted, changed in order, or shifted in time (although we have cut our traced record into pieces, we present the pieces in their original sequence and have omitted none of them).

Before discussing song type A, we must make one final point. Some phrases in humpback songs are further complicated by being inexact replicas within a theme. That is, the phrases systematically change, or "evolve," with each successive repetition during a theme. The phrases in theme 1 of song A are a good example of this. The six themes of song type A are as follows.

Theme 1: Figure 6 shows that each phrase in this theme consists of three principal units—unit 1, a sound like a motor running [a pulse train in which the number of pulses (subunits) per second changes during the train], followed by units 2 and 3, a pair of sustained or wavering tones. (Sometimes each sustained tone is followed by a faint pulse, and sometimes the phrase ends with a very low grunt.) With each repetition of this phrase, unit 1 becomes longer, and, toward the end of the theme, each sustained tone tends to occur at a higher frequency than the previous one. (In song type B, the pulse trains are given without sustained tones between them or with just a brief tone tacked on to the end of the train of pulses—see whale IV.) Thus, in song type A, theme 1 consists of a series of sequentially modified phrases changing in a predictable fashion.

Theme 2: We arbitrarily designate the onset of theme 2 as the moment when sustained tones give way to shorter tones, or rapidly ascending frequency sweeps. Theme 2 is one of the most variable in our sample. It may consist of a great variety of sounds, but all, or most, of them are ascending frequency sweeps or brief (less than 1 second) high-frequency squeaks or chirps. The theme has no obvious subsets that repeat predictably. Theme 2 is quicker in tempo and less rhythmic than the rest of the song, which is composed of more measured, drawn-out phrases.

Theme 3: The phrases in theme 3 have as their first unit a loud, ascending frequency sweep, which is emitted from one to three times and is followed by several fainter, high-frequency harmonic arpeggios. In some cases, the arpeggios become more elaborate with each repetition of this phrase, until, by the end of the theme, the component notes become more sustained. (See Fig. 10 for an expanded, scale view of arpeggios from the songs of whale II and whale IV.) The loud, ascending frequency sweep, marking the beginning of each phrase 3, usually occurs twice (only once in case of whale III) at the outset, but in the course of the theme changes to three repetitions and stays at three. When there is a transition from two to three, it is as irreversible as the basic sequence of phrases in a song.

Theme 4: Theme 4 is one phrase long. It starts with a loud, ascending sweep that is similar to unit 1 in theme 3. Each successive unit in this theme rises and falls in frequency, but returns each time to a lower frequency than the preceding unit. (This gives the impression of a deepening series of roars or bellows.) The last units of theme 4 are low-frequency grunts (which may be descending pulse trains).

Theme 5: The phrases of this theme typically have six units. Unit 1 is a downward sweeping note; unit 2, a loud, low, rising or slightly warbling note (followed sometimes by one or more brief, descending, pulsive notes that are hard to detect in poor recordings). Units 3 and 4 are very like units 1 and 2. Units 5 and 6 are grunts. Since there are usually two such grunts, each phrase in theme 5 usually consists of six units. However, there may be three (rarely more) grunts, and sometimes one or even none. This whole phrase is usually repeated once; thus, theme 5 is usually two phrases long.

Theme 6: The components of this theme are unit 1, a loud, sustained tone; unit 2, a descending note (sometimes in the form of a slowly falling warble); unit 3, another sustained tone similar to unit 1; unit 4, a descending note similar to unit 2 (sometimes there are faint pulsive notes after units 2 or 4, or both); and a series of one to

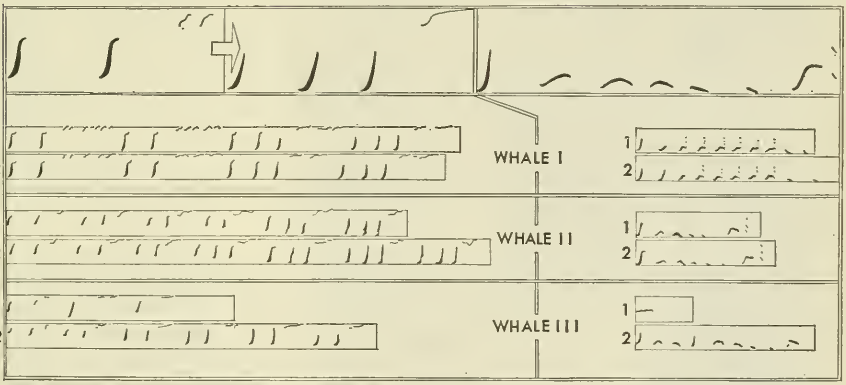

Fig. 8. (Left) Theme 3. Note the evolution of the phrases comprising this theme from two loud sweeps rising in frequency, followed by short, high, harmonic arpeggios, to three loud sweeps rising in frequency, followed by more sustained, rising notes; (right) theme 4 (only one phrase long) is the shortest theme in song type A.

four grunts (units 5, 6, and so on). This phrase is usually repeated quite exactly ten or more times. An interesting sound that is sometimes superimposed on the grunts may represent the audible component of a train of ultrasonic pulses, but this possibility must await recordings on equipment sensitive to ultrasound.

Song type B (as shown by whale IV) resembles type A in themes 1, 2, and 3, but by theme 4 the parallel is less clear. The series of descending notes shown on line 4 of Fig. 5 is not comparable to anything in song type A, unless it could be thought of as a series of units similar to those in theme 4, but with the duration of the units, and the silences between them, being much greater. The subsequent very short and rapidly delivered notes are certainly unlike type A songs. At the end of its first and second songs, whale IV emits sustained notes that are followed by a low grunt. In a broad sense, this is quite similar to the basic phrase of theme 6 in song type A. However, in type A the sustained notes differ markedly in pitch, whereas they are delivered at roughly constant pitch in song type B. In some ways, type B is intermediate between type A and the very different song type C. (We have various examples of type C from 1969, but they will not be discussed here.)

Since variability within a fixed general pattern is such a prominent feature of humpback songs, it may be worth taking a detailed look at some of the

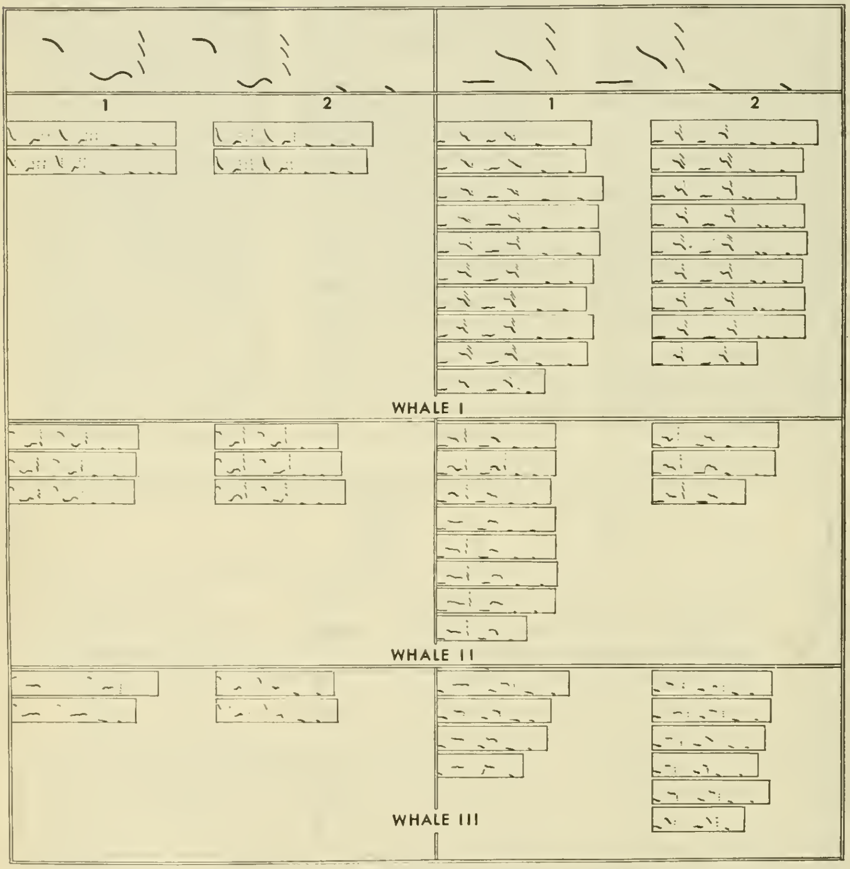

Fig. 9. Themes 5 (left) and 6 (right). The starting moments of the first unit in each phrase are aligned at the left margin of the column. Note the very regular duration and spacing of these sounds.

highest frequency units in the song—the arpeggios following the loud rising units in theme 3 (Fig. 10 shows such units from whales II and IV, song types A and B, respectively). The complexity of the arpeggios and their variation from song to song are obvious.

Beginnings of Songs

Following the last phrase of the final theme in either song type A or B, the whale starts the first sound in the next song (which we have labeled the first, and shortest, pulse train of theme 1) without any noticeable break in the rhythm of singing. The pause between any two phrases of the last theme is, if anything, longer than the pause between the last phrase of one song and the first phrase of the succeeding song. This fact should make it apparent that not only is our designation of phrase beginnings and ends arbitrary, but so is our choice of the start of a song. It is also possible that what we have designated a "song" may, in fact, be a long segment of a still longer song, but that possibility must await further analysis.

The criterion we have used here to determine a starting point is influenced by our large sample of recorded songs from the years 1969 and 1970. In these songs, the overwhelming majority of starts, stops, and blows occurs at a point corresponding roughly to the starting point we have chosen here. Watlington's tapes include very few records of whales beginning to sing and only slightly more of the ends of song sessions. (Usually the tape ran out, the noise level from passing ships rose to mask the whale sounds, or recording was stopped.) Thus the Watlington sample is really too small to warrant any conclusion on this point. It is clear, however, that, regardless of where a song may begin, the whale continues the sequence of themes in the same irreversible order (that is, 3, 4, 5, 6, 1, 2, 3, 4, 5 . . .).

Evidence that One Whale Is Responsible for a Song

We have been assuming throughout this discussion that any given song or song session is the performance of one whale.

The evidence that a song is produced by one whale and not by two or more in alternation ("duetting") follows. In long samples of sounds: (i) we never heard anything less than a song (if we had ever heard songs in which themes, phrases, or units were absent but in which there were pauses of appropriate length to accommodate the missing piece, we might suspect that two whales cooperate to produce a complete song); (ii) no units, or subunits (excluding what are obviously echoes),

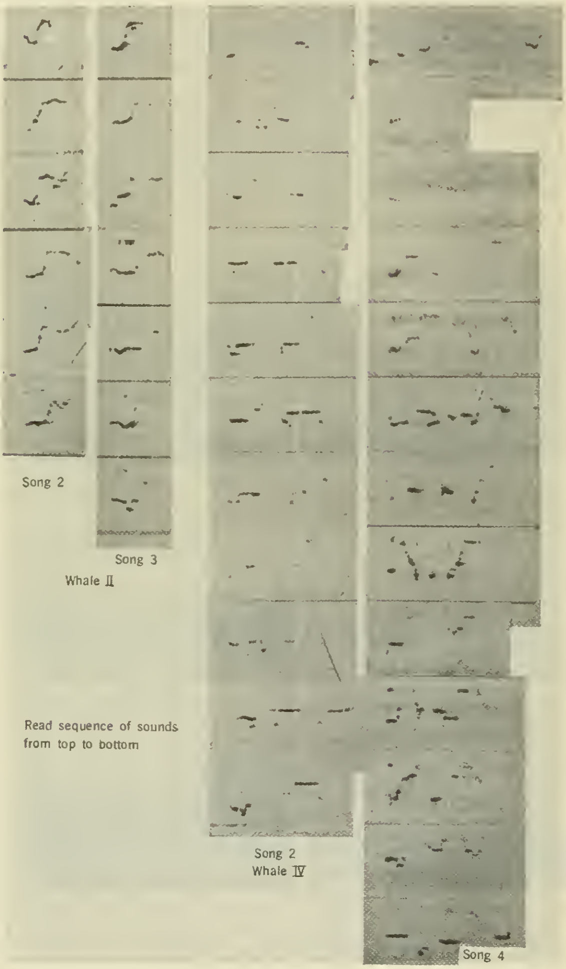

Fig. 10. Linear, wide-band spectrograms (upper frequency limit 2 kilohertz, effective filter bandwidth 200 hertz) show the complex and variable structure of the highest notes in phrase 3. Columns 1 and 2 are from songs 1 and 2 of whale II. Columns 3 and 4 are from songs 1 and 2 of whale IV. Read sequence of sounds from top to bottom. (The intermediate lower and louder frequency sweeps are omitted here.)

have been found to overlap in time; (iii) in some recordings (not reported or diagramed here) we find two complete songs that differ in average volume (indicating two whales, one near and one distant), each progressing in its own rhythm and form with no obvious relationship to the other. An example of a distant whale singing may be seen in the spectrograms, not the tracings, of the second and third themes of the second song of whale II. Here the loudest sounds of a distant whale's phrase 6 are detectable. In addition, some of Payne's 1969–1970 tapes include several whales producing sounds at once. In some cases (presumably when the hydrophone was roughly halfway between two whales), two sound sources are at equal volume, but analysis reveals that both sources are rendering complete songs. Neither whale seems to depend on the other for any phrases or notes. In many cases, one of the sources stops while the other continues repeating complete songs.

None of our observations absolutely excludes the possibility that songs are actually duets between whales swimming very close together. (Pairs or trios of humpbacks are frequently observed near Bermuda, and they are often in bodily contact when traveling together.) But if the whales are duetting, they are very precise in their alternation of sounds and unfailingly wait their turn to add their own notes.

Sex of the Performing Whale

On the question of whether songs come from males, females, or both, we have nothing yet to offer. It is possible that there will prove to be significant differences between the vocal apparatus of males and females. However, since we are not really sure that the larynx produces these sounds (though it seems likely that it must be involved), we would not even know what part of a humpback corpse to examine if we had one (and we have never had one). Mature male humpback whales are smaller than mature females, but, because there is so much overlap in size, it is only on very favorable occasions at sea that one could hope to determine the sex of a given whale. In addition, it has been our experience that humpback whales stop singing when we get close enough to distinguish subtle differences in their morphology. [Levenson (*6*) reports the same difficulty, as does Schevill (*2*), although Schevill's remarks are restricted to Odontocetes.] It will take a very fortunate occasion indeed to see whether males, females, or both sexes produce the songs.

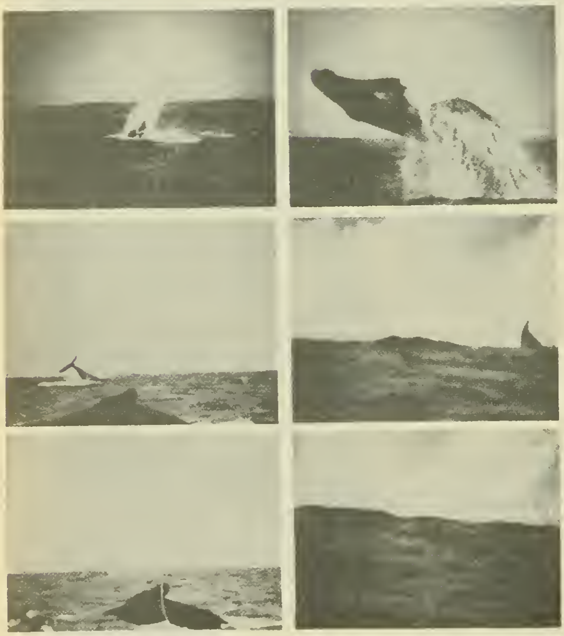

Fig. 11. Upper left, "finning"; remainder of left column, "lobtailing" (two pictures separated by one-half second—the dorsal fin of a nearby whale just starting to dive is prominent). Right column, three pictures (by R. M. Johnson) of a humpback "breaching," showing the impressive splash that follows. Frames are about one-half second apart.

Other Species

The songs we have described are often sung very loudly (a detailed discussion of the theoretical consequences of this is in preparation); therefore, one need not be within viewing range of the source to record the songs. Although this makes recording easy, it raises the constant specter that we have tried too hard to find similarities between songs recorded on different occasions near Bermuda. It is also possible that we may, in fact, be lumping together vocalizations of more than one species.

As mentioned earlier, there is good evidence that finback whales produce their moans in set patterns, and Cummings and Philippi (*13*) have evidence of cyclic sounds from what they believe to be a right whale (*Eubalaena glacialis*). If their species determination is correct, it could mean that singing is a common form of Mysticete vocalization. For this reason, also, we advance the possibility that we may have combined the sounds of a stray right whale or some other species with true humpback sounds. The large number of humpback whales in the vicinity of Bermuda during April and May (the only months from which our analyzed records were taken) and the apparent lack of right whales in that area at the same time (with the exception of one pair that Payne observed 25 miles southwest of Bermuda on 13 April 1970) argue against this concern. Yet the possibility remains that some other species have been included with our data on humpbacks.

Possible Significance of the Song

Schevill (*2*) notes: "The sonorous moans and screams associated with the migrations of *Megaptera* past Bermuda and Hawaii may be an audible manifestation of more fundamental vernal urges, for in New England waters and at other seasons we do not hear anything nearly so spectacular from this species." The implication here is that courtship is seasonal. However, there is good evidence, from measurements of embryos collected by whalers, that, even though most successful humpback matings occur during two peak seasons each year, some matings do occur throughout the year (*14*). Mating, of course, does not always immediately succeed courtship in all species. Even if some humpback pairs mate year-round, it is quite likely that courtship activities leading to pair formation are seasonal. In this case, the songs may be related to pair formation.

The playful behavior of humpbacks near Bermuda in April and May has suggested to some observers that they are courting. The whales slam their tails on the surface of the water (lob-tailing), wave and slap their fins on the water (finning), and frequently and repeatedly jump (breaching) (Fig. 11). However, since these activities are frequently observed at other latitudes and at other times of year (*8*, p. 288; *15*), they do not seem to be particularly linked with singing. If we wish to consider such antics, as well as songs, part of courtship, then we might conclude that the songs are involved with seasonal pair formation, and the acrobatics with year-round mating. Of course, if pair formation occurs year-round, such theories have no meaning.

Winn (*16*) has heard and recorded humpback songs near Puerto Rico in February, so the songs are apparently sung for at least 3 to 4 months. Thus, if songs are part of pair formation, we would expect it to be a lengthy process lasting from midwinter until well into spring.

In the North Atlantic, this time period (February to May) also corresponds to northward migration. Thus, one might imagine that the songs serve as a sort of flock call to hold a loose cluster of individuals together during their long migration. Until there is further evidence, we can only guess what function this remarkable series of vocalizations serves.

Summary

1) Humpback whales (*Megaptera novaeangliae*) produce a series of beautiful and varied sounds for a period of 7 to 30 minutes and then repeat the same series with considerable precision. We call such a performance "singing" and each repeated series of sounds a "song."

2) All prolonged sound patterns (recorded so far) of this species are in song form, and each individual adheres to its own song type.

3) There seem to be several song types around which whales construct their songs, but individual variations are pronounced (there is only a very rough species-specific song pattern).

4) Songs are repeated without any obvious pause between them; thus song sessions may continue for several hours.

5) The sequence of themes in successive songs by the same individual is the same. Although the number of phrases per theme varies, no theme is ever completely omitted in our sample.

6) Loud sounds in the ocean, for example dynamite blasts, do not seem to affect the whale's songs.

7) The sex of the performer of any of the songs we have studied is unknown.

8) The function of the songs is unknown.

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13. W. C. Cummings and L. A. Philippi, *Publication No. NUC TP 196* (Naval Undersea Research and Development Center, 1970).
14. Tomilin (*8*, p. 280) bases his claim (that mating occurs year-round) on 68 humpback fetuses collected during whaling operations in the North Pacific. By extrapolating from embryo lengths, he calculated conception dates and, thus, the number of humpbacks conceived in each month: January, 1; February, 9; March, 12; April, 14; May, 4; June, 3; July, 1; August, 1; September, 12; October, 8; November, 3; and December, 0. Although two periods of increased mating activity are apparent, they are not sharply defined. Yet, even from such a small sample, we see that successful matings have occurred in 11 out of 12 months.
15. W. E. Schevill and R. H. Backus, *J. Mammalogy* **41**, 279 (1960); R. G. Van Gelder, *Amer. Mus. Novitates 1992* (1960), pp. 1–27; anecdotal observations of many authors.
16. H. Winn, personal communication.
17. Research was supported, in part, by NSF grant GB 5564 and by grants from the New York Zoological Society. We thank M. Konishi, P. Marler, and F. Nottebohm for letting us use their sound analysis equipment and K. Payne and E. D'Arms for helping us with the spectrography. We are particularly grateful to Frank Watlington of the Palisades Sofar Station, St. David's, Bermuda, for so generously making tape recordings available to us.

[From The Washington Evening Star, Aug. 21, 1971]

YOUTHS RIDE WHALE HERD TO SAFETY

BOCA GRANDE, Fla. (AP)—Teen-agers swarmed into shallow waters yesterday and rode a herd of beached whales piggyback to safety in the Gulf of Mexico.

The impromptu rescue effort put the mammals back on course—at least temporarily.

All but two of the 47 whales were lugged and coaxed back into deeper waters, said Sgt. Robert Patterson of the Florida Marine Patrol. The two died, he said.

The black, snub-nosed sea creatures, 8 to 20 feet long, swam slowly down the gulf, but darted inland again near the south tip of this swanky winter resort.

Officer Don Ellingsen said they wallowed around in shallow waters for about two hours until a squall hit and drove them out.

The whales started beaching on Gasparilla Island here around daybreak, said Lee County Deputy Sheriff Johns Knight.

Teen-agers in floppy hats, t-shirts, blue jeans and sandals, raced into the foot-deep waters where the mammals were stranded, jumped aboard some and guided them to safety.

Marine officers in boats lassoed others by the tail and towed them to deeper areas.

"People weren't afraid," Knight said. "They went right into the water to steer them off shore."

"The whales flipped their tails and knocked some of the kids down," said Joe Warner, an observer. "But they didn't seem hurt. They got right back up."

He said about 30 onlookers, mostly tene-agers pitched in on the rescue effort.

Scientists at the Florida Department of Natural Resources said they don't know why the whales beach themselves. 'It seems to be a suicidal tendency," one commented.

He said similar phenomena have occurred on the Atlantic Coast and the Florida Keys, but he didn't know of any previous occurrences on the Gulf Coast.

Mrs. STEVENS. The song of the humpback whale is probably familiar to the members of the committee and that has been recorded by Roger Payne, one of the authors of the article about the humpback whale.

This is a new approach scientifically to the study of marine mammals.

Dr. Schevill, who gave testimony this morning, has also recorded the whale songs and other sounds and it has been done for some time but the work of Roger Payne is probably the most advanced in this area and you may be looking at the back pages of that article and you will see the sound all portrayed visually.

Mr. Chairman, the Society for Protective Legislation is deeply grateful to the chairman and members of the Subcommittee on Fisheries and Wildlife of the Merchant Marine and Fisheries Committee for holdings these thorough and extensive hearings on sea mammals, creatures remote from most of us, but having an enormous and unexplained fascination for human beings. The view has been expressed that when the entire story of the evolution of homo sapiens is discovered, some phase will be related to life in the sea. Those mammals, which, like ourselves, produce only a single offspring at a time, and which have such remarkably well developed brains are possible candidates for a case of, at the very least, parallel development with our own.

Clearly the dearth of scientific literature on the living mammals of the oceans makes all theories purely speculative, but as you have stated. Mr. Chairman, we are dealing with animals "some of whom may be at least as intelligent as man." At these hearings, which are the most interesting I have ever attended, we have learned that sea lions and seals are capable of using the money principle which, theretofore, has I believe, only been tested on the great apes, man's nearest known relatives. We have all heard of the chimpomat which chimpanzees use to get the grapes they want for the plastic discs they earn, but until the testimony submitted on behalf of the Sea Mammal Motivational Institute, I certainly was not aware that pinnipeds could rival chimpanzees in this respect.

Dolphins and porpoises have been called the intellectuals of the sea, but it would appear that even the lesser brains among the sea mammals outshine the majority of terrestial species.

For a long time the distinction which was supposed to separate man from the other mammals was his ability to use tools. This distinction, like others previously suggested, collapsed in recent times in the face of scientific evidence—evidence of the simplest kind: observation of animals such as chimpanzees and sea otters. At these fascinating hearings we learned that the southern sea otter uses not only the stones with which it has been cracking shell fish on its chest since primeval times, but also pop bottles and beer cans which come to hand so easily today in the ocean's depths as on the face of the earth.

Scientific descriptions of man as "the tool-using animal" remained unchallenged for so long because insufficient observation of animals in their natural environment had been made, and because the use of tools does seem to be an indication of superior intelligence. Certainly, the sea otter qualifies for a rating at the very highest part of any scale which might be drawn up for many of those qualities which we consider most admirable in human beings. To see in the film "The Sea Otters of Amchitka," a mother sea otter with her enormous pup, seemingly bigger than she at 12 months or more of age, but still, in her eyes, in need of affectionate care, is an experience which encourages one to take an optimistic view of life despite growing evidence for pessimism. This mother works hard, diving for shellfish but never objects when her huge offspring takes the succulent morsel from her mouth. She works. He eats. Finally, he falls asleep, floating comfortably on his back. She preens her fur ready for sleep herself, then thinks she had better take his head up onto her chest. She guards him in his sleep, a marvel of maternal kindness and solicitude.

Do the majority of women who have worn the skins of such creatures as these equal them in tolerance, amiability, devotion and self-sacrifice? Though that question may be better left unanswered, the women who wore these skins in the past may be excused because they did not know what we know now. A question which should be answered, however, is whether the Congress should permit the reestablishment of a luxury fur trade using the skins of animals of this calibre. It is said that the furs they produce are the most beautiful in the world, but what would be the character of the human being who would be willing, knowing the life history and behavior of the typical sea otter, to deck herself in a garment made of sea otter skins?

We would suggest that in the management of an animal such as the sea otter, the development of techniques to control fertility would be called for in any instance in which it can be firmly established that an otter herd has exceeded the carrying capacity of its range. Such techniques have been developed for the control of pigeon populations in cities and have had limited trials with respect to predator control. They should be expanded for use in the management of sea mammals, especially in areas where undue influence of a commercial nature is likely to be exerted to the detriment of the animals. There is no incentive to apply fertility control unless it is clearly necessary.

The point made by Charles Callison of the National Audubon Society concerning the qualifications of individuals to be recommended by the Chairman of the Council on Environmental Quality for appointment by the President to the Marine Mammals Commission, is one with which we in the Society for Animal Protective Legislation agree most strongly. Not only do we fear, as he does, that "the fur industry or other commercial and industrial interests whose purpose is exploitation, not conservation" will demand representation on the small, three-man Commission, but we fear that some scientists who have what amounts to a vested interest in the killing of sea mammals because of the nature of their specialties and jobs, might exert an unduly great influence. It has been suggested that a broader base which would give the concerned public a substantial voice in decisions should be provided. At the very least, and this is what we suggest, the qualification for Commissioners should be as broad as that specified for the scientific advisory committee. (See recommendations on contents of legislation.)

There is a scientific "new wave" which does not depend upon carcasses for its data. The lead article in the August 13 issue of Science required no killing of the humpback whales who are its subjects. Because of the importance of this article, I wish to submit it for the use of the subcommittee. Far more scientific effort should, indeed must, be devoted to the study of living mammals of the sea in their natural environment. This will require open minds, the putting aside of often repeated techniques which have already yielded the bulk of the information they are capable of eliciting. Some of these techniques have already demonstrated their inherent weaknesses. As Dr. Ray pointed out in previous hearings, the age of all the whales of the world suddenly doubled when scientific views changed. (It is significant that it was a 5-year cessation of whale killing during the war which showed the then established scientific data to be off by a factor of 2.)

The study of the dead, like the study of close captives, belongs to a period from which we seem to be at last emerging. As the fear of losing the animals, the plants, the air, and the water that we have so long taken for granted comes over us, young scientists have appeared to use the scientific method in ways my generation would not have considered or even thought of. This subcommittee has heard testimony from a few of them, but there are more—some who cannot be located within a reasonable period because they spend much of their time at the bottom of the sea. I would like to quote from the opening of a book by one of these oceanographers, Robert Stenuit, author of "The Dolphin, Cousin to Man."

He quotes from Aesop (600 B.C.); Oppian (second century, A.D.); the New Zealand Gazette, 1956; and Isvestia, 1966. Two of these quotations will convey the idea clearly. Oppian writes:

> It is an offence to the Gods to hunt dolphins, and he can no longer approach the Gods to offer a sacrifice nor touch their altars with pure hands, who of his own will has been the cause of the destruction of dolphins. He makes impure even those living under his roof, because the gods hold the massacre of the monarchs of the depths to be as execrable as the murder of a human.

M. Alexander Ishkov, Minister of Fisheries of the U.S.S.R., writes:

> The capture of dolphins is henceforth prohibited in all the territories of the Soviet Union * * *. I believe that it will be possible to preserve all dolphins.

> In the interest of science, their capture should be stopped in all the oceans and seas of the world.

In an illustration following page 144 of the book, the author and a dolphin are shown in a photograph with the following caption:

> The teeth of a dolphin could turn him into a dangerous enemy, yet no dolphin has ever attacked or molested a man, even in self-defense. The author here makes a perfectly safe demonstration.

This book tells, too, that the ancient Greeks set at liberty the dolphins that were caught accidentally in their nets while fishing. Why is our country guilty of the most enormous killing of small cetaceans in the history of the world? Because the use of purse-seine nets to save labor in the capture of tunafish, automatically ensnares the porpoises together with the tuna they run with in the sea. We are informed that during the first 4 or 5 years of the use of the purse seines, no organized effort whatsoever was made to release these friendly, trusting, and intelligent mammals from the nets, and an estimated million of porpoises met their death through drowning. The purse-seine technique began about 1958 or 1959. The fleet converted to its use in 1959–60, and for years the tuna industry did not even bother to try to let the porpoises who had led them to the lucrative tuna catches go free. Not until they began to recognize that the numbers of porpoises were decreasing so that the industry's ability to find tunafish was also decreasing, did it develop the backing-down technique which saves some of the porpoises. Even with this technique, an estimated one-quarter of the porpoises are killed in each tuna "set," amounting to approximately 250,000 porpoises drowned each year in the name of canned tunafish.

Our country is responsible for the invention of the purse seine, an unecological triumph of efficiency. Since we thought it up, it is up to us to think of a way to get the porpoises out of it and to see that the other tunafishing nations do the same. We must go beyond unilateral action to stop purse seining in its present form. The testimony before this subcommittee to the effect that the problem is virtually solved is not, in the light of the best information we have been able to obtain, accurate. We have been unable to find a realistic solution. We doubt that one will be reached without the expenditure of far greater mental effort and the funds which such effort generally commands on the market. We believe that the bill approved by this subcommittee should require immediate new effort to solve a problem which is paramount in the marine mammals bill. It is the only area in which the United States is guilty of active destruction of cetaceans in a manner which is bringing about the extinction of the very species most celebrated by poets and artists, the species who, according to Oppian, renders a man impure if he "of his own will has been the cause of the destruction of dolphins." I repeat this because the tuna industry wants the distinguished members of this subcommittee to believe that it "loves" the dolphins. Of course, the industry loves the way the small cetaceans lead them to the tuna, but the evidence shows that for years they were completely hardhearted toward the drowning porpoises in their purse seines. If they had any concern at all, it was with the cost of the labor of getting the heavy bodies of the dead porpoises out of the nets, not with saving the porpoises' lives.

We urge this subcommittee to put the tunafish industry to the test. If, indeed, the finer nets now being tested will result in the rescue of the porpoises. they have nothing to fear from legislation which requires that tuna. alone. will be taken in the nets and that no ocean mammals will meet death in the course of purse seining. If, however, these nets are not the answer, then the industry and our Government must expend the necessary funds to return our country to a position which the ancient Greeks could have respected.

Porpoises are not the only sea mammals being caught in the nets and slowly drowned. And it is important to remember that the drowning of a sea mammal is far, far worse than the drowning of a terrestrial animal. Since these creatures can remain below the surface for so long a time. the terror which people who have almost. but not quite. drowned, describe would be drawn out in a horrible manner. We are informed that seals are being caught in nets along the coasts of Newfoundland. Labrador. and the Gulf of St. Lawrence and drowned. Massive shooting of seals at long range. which we have so fortunately avoided in our country, takes place every year both in the Gulf of St. Lawrence and on the so-called front just beyond Canadian jurisdiction. Nor are most of the Canadian land-based sealers regulated. They reportedly rush out with any kind of a stick they may pick up to club effectively or ineffectively the baby seals which they then skin.

Dr. Harry Lillie described the slaughter in 1964 as follows:

> The baby seals. helpless on the ice, are knocked on the head with gaffs, rough cut wooden staffs. This properly done involves no suffering and there is no other satisfactory humane method. but sometimes men will just daze the young seals with a kick before cutting the bodies out of the fat and skin. Later in the season when the babies have taken to the water at three weeks to a month. the adult seals gather on the ice to moult. They are then shot from a distance with rifles, involving great cruelty and waste. many escaping badly wounded to die under the ice. Losses have been as high as two lost for every one secured and I have seen as many as five blood trails leading off one single ice floe with not one seal recovered.

Since that time international publicity has been focused on the killing of baby seals. and fisheries officers have been sent out to supervise the killing of the seals on the Canadian ice floes. Major improvements have been made in the killing of seals under their jurisdiction; however. large numbers are killed in areas where there are no fisheries officers.

There are thus three inhumane methods whereby the skins of immature and mature harp and hood seals are being obtained outside the jurisdiction of the United States: (1) shooting of adult seals, many of whom are only wounded and die slowly. (2) ineffective stunning of baby seals where no fisheries officers are on duty. and (3) netting of seals who are killed by drowning. a slow and terrifying process for an ocean mammal.

Even more horrifying as a method of killing is the explosive harpoon which is universally used by the whaling industry. As the film. "Thar She Blows" so explicitly shows, the explosive harpoon causes appalling suffering. The narrator points out that it seldom kills with one shot. "Sometimes a whale drags the boat all over the ocean before the gunner can finish him off." We see two and three harpoons being sunk into the same whale. The grenade goes off within the body of the whale. causing excruciating pain. I hope the subcommittee will be able to see the closing few minutes of this film in which the narrator reports that the whales "encircled their wounded brother as if to protect him." Their noble actions did not spare them. Instead, the killing of these great animals is described as a "jackpot climax."

It is interesting to note that, although the film does not credit the Panamanian Government or Aristotle Onassis, the name *Olympic Explorer* can be plainly read on the side of one of the vessels. The terrible history of the Olympic Whaling Co. is briefly summarized pages 165–171 of "The Blue Whale" by Professor George Small (Columbia University Press, 1971) and I would submit copies of these pages for use by the committee. They describe how the factory ship, *Olympic Challenger*, hid behind an iceberg when discovered about to retrieve the carcasses of humpback whales killed in violation of the regulations of the International Whaling Commission.

> The International Whaling Commission had no power to enforce its regulations; it could only formulate them and lament infractions. But national governments can enforce laws, and one of them did so with a vengeance. On November 15 and 16, 1954, units of the Peruvian navy and air force bombed and machine-gunned ships of the Olympic Challenger expedition for operating within 200 miles of the Peruvian coast. Five of the vessels were taken to port and detained for weeks until a fine of $3 million was paid. The Peruvian action only temporarily halted the operations of the fleet. Shortly thereafter the Olympic Challenger sailed for the antarctic.

There, as reported by Professor Small:

> The entrails of baby whales were processed in cooker No. 8 on the Olympic Challenger before being jettisoned. Unprocessed baby whale entrails would float for some time and be evidence of illegal whaling.

The Federation of Norwegian Whaling Companies took court action to seize oil and ships of the Olympic Whaling Co. According to Small:

> The corporate legal battle that followed was conducted for the most part in secret. No trials were held. Anders Jahre representing the Norwegian companies and Onassis representing the Olympic Whaling Company reached a private settlement. The Norwegians paid $1 million and the Olympic Whaling Company paid $3 million to a special fund for the Norwegian Whaling industry. This special fund was used to construct a luxury hotel with office space for the Association of Norwegian Whaling Companies in Sandefjord, Norway.

Thus were the whalers settling their differences with the usual secrecy while the public continued naively to suppose that the International Whaling Commission was protecting the whales.

The secrecy surrounding whaling suggests guilty consciences, and the secrecy is intense. The whaling companies of Japan and Norway from whom Professor Small sought financial information were unwilling to provide data. The Japanese described it as "highly confidential." No information at all is available from the U.S.S.R. on the subject. The International Whaling Commission itself meets behind closed doors whenever it is making decisions on how many whales to kill, and shuns publicity, as well it may, for now that it is, at last, receiving the attention of the press, the comments are unanimously unfavorable.

(The material submitted follows:)

[From the National Whaling Policies]

A second example of serious infractions of the regulations that may have contributed significantly to the extermination of the blue whale concerns a whaling fleet of Panamanian registry. The factory ship *Olympic Challenger* began Antarctic pelagic whaling in the 1950–51 season. It was owned and operated by the Olympic Whaling Company of Panama; its catchers belonged to a Honduran company. The majority stockholder of both companies was Aristotle S. Onassis, an Argentinian citizen.

From the beginning of its whaling operations the Olympic Whaling Company was a source of both irritation and suspicion to the Norwegian companies. The *Olympic Challenger* used Hamburg, Germany, as its home port and its company agent there, the Erste Deutsche Walfang Gesellschaft, was managed by the former administrator for Nazi Germany of the Norwegian whaling ships that were captured and confiscated during World War II. The manager of the *Olympic Challenger* and its fleet of catchers was a Norwegian citizen, once a member of the Norwegian Nazi party, who had been manager of the German factory ship *Walter Rau*. When the Olympic Whaling Company was being organized its agents went to Norway to recruit skilled labor. The company was informed of the Norwegian law prohibiting this but persisted and hired 15 gunners. The Norwegian government and the Norwegian whaling companies did not forget the incident.

Almost as soon as the *Olympic Challenger* began whaling, rumors began to circulate among British, Japanese, and Norwegian whalingmen that the Panamanian ship was breaking many of the rules. In the vast spaces of the Antarctic it was not easy for whalingmen to observe each other's actions. The necessity of killing as many whales as possible before the season ended left little time for snooping. From time to time the *Olympic Challenger* was observed committing infractions, but none of those occasions were as well documented as the following. On January 13, 1955, the Japanese catcher *Koyo Maru* 2, operating with the floating factory *Honan Maru*, found and photographed a marked humpback whale carcass at 64° 12′S. 162° 21′W. The *Olympic Challenger* was the only other factory ship in the vicinity at the time. The regulations then in force allowed the killing of humpback whales only between January 20 and 23 inclusive. Five days later the buoy boat *Koyo Maru* (used to retrieve carcasses) saw the *Olympic Challenger* at 65° 47′S. 170° 50′W. When discovered, the Panamanian ship cast adrift 4 humpback carcasses and moved behind a nearby iceberg. The *Koyo Maru* approached to within 100 yards of the dead whales, photographed them, and submitted a report of its findings to the International Whaling Commission.

The International Whaling Commission had no power to enforce its regulations; it could only formulate them and lament infractions. But national governments can enforce laws, and one of them did so with a vengeance. On November 15 and 16, 1954, units of the Peruvian navy and air force bombed and machine-gunned ships of the *Olympic Challenger* expedition for operating within 200 miles of the Peruvian coast. Five of the vessels were taken to port and detained for weeks until a fine of $3 million was paid. The Peruvian action only temporarily halted the operations of the fleet. Shortly thereafter, the *Olympic Challenger* sailed for the Antarctic.

Conclusive proof of the infractions committed by the Panamanian fleet was finally obtained in the winter of 1955–56. Seven German citizens who served a few seasons on the *Olympic Challenger* went to the Norwegian Consulate General in Hamburg and signed notarized affidavits describing the illegal whaling practices they had witnessed. Among the men was the dentist who had also acted as the expedition's assistant medical officer. Their testimony was reinforced by photographs which they had taken of undersized whale carcasses, by diaries of observances of infractions, and by photographs of the ship's logbook that showed false reports of the catch had been submitted to the Bureau of Whaling Statistics in Sandefjord, Norway. The following is a brief summary of the major infractions witnessed by the German whalingmen of the *Olympic Challenger*:

(1) During the autumn of 1954 the Panamanian factory ship reported a catch of 2,348 sperm whales off the coast of Peru. The actual catch was 4,648 sperm whales, 285 blue whales, 169 fin whales, 105 humpbacks, and 21 sei whales. Of the blue whales killed, 35 were 59 feet or less in length and 2 were less than 49 feet. It was forbidden to falsify catch reports. Also, it was illegal for factory ships to catch baleen whales between the Antarctic and the Equator.

(2) During the 1954/55 season in the Antarctic the *Olympic Challenger* began hunting baleen whales before the season opened on January 7.

(3) Whales were killed regardless of size. Baby sperm whales were shot before they even had teeth. Some were only 5 meters long and must have been newly born calves (a sperm whale averages 4 meters at birth). Many young whales were shot, and on occasion 4 at a time were hauled on board by winch. Often a whale was so small that it was only necessary to remove the harpoon and entrails before the carcass was dropped whole into the cookers.

(4) Five of the 7 German whalingmen swore they never saw a Panamanian inspector on the flensing deck.

(5) False catch reports were submitted to Sandefjord. During the 1954/55 season the *Olympic Challenger* reported catching 170 hump-back whales. In reality it caught 1,125. To hide this the ship reported 700 more fin whales than it had killed. The baleen-whale oil produced illegally off Peru was reported as sperm oil. It was also necessary therefore to falsify the sperm-whale catch in the Antarctic.

(6) By sending in falsified reports on the size of the catch the *Olympic Challenger* caused the 1954–55 season to be declared closed before the 15,500 blue-whale-unit was actually reached. The *Olympic Challenger* continued whaling after the other expeditions headed home and killed an additional 12 blue whales and 13 fin whales.

(7) The *Olympic Challenger* violated the opening and closing dates of the whaling seasons 1950/51 and 1952/53. (Proof of other infractions in these earlier years is lacking.)

The following procedures, while not infractions in themselves, were enforced on the *Olympic Challenger* apparently to prevent disclosure of infractions

(1) It was forbidden to photograph baleen plates. The reason is obvious: the color, size, and shape of baleen plates are reliable indicators of the age and species of whales.

(2) The entrails of baby whales were processed in cooker No. 8 on the *Olympic Challenger* before being jettisoned. Unprocessed baby entrails would float for some time and be evidence of illegal whaling.

As evidence of serious infractions by the Panamanian factory ship became available, the Norwegian government lodged protests with the Panamanian government. These overtures produced no results. The Federation of Norwegian whaling companies decided to take independent action because by its reckoning the *Olympic Challenger* since 1950 had produced illegally some 217,000 barrels of oil worth about N.kr.60 million. The Norwegian companies, through court action, caused the seizure in Hamburg of 9,000 tons of whale oil belonging to the Olympic Whaling Company. The whale oil, they claimed, was the equivalent in value of the damages they had suffered as a result of illegal whaling by the *Olympic Challenger*. The Norwegian whaling companies, again by court action, had the *Olympic Challenger* and its oil seized in Rotterdam. The charge here was breach of whaling regulations during the 1952–53 season. Onassis countered by going to court and having the Norwegian factory ship *Kosmos III* seized as security for his claim of 10 million guilders against the Norwegians, a sum equal to the Norwegian claims against his company. The corporate legal battle that followed was conducted for the most part in secret. No trials were held. Anders Jahre representing the Norwegian companies and Onassis representing the Olympic Whaling Company reached a private settlement. The Norwegians paid $1 million and the Olympic Whaling Company paid $3 million to a special fund for the Norwegian whaling industry. This special fund was used to construct a luxury hotel with office space for the Association of Norwegian Whaling Companies in Sandefjord, Norway.

The out-of-court settlement of the *Olympic Challenger* affair caused considerable discontent in Norway. Whalingmen were angry because they received no compensation for the loss in wages they had suffered. Public opinion, as expressed in many newspapers, was almost equally critical. Norway, it was reasoned, had developed the pelagic whaling industry and shown the way to others. Norwegian whalers obeyed the rules while others disobeyed them with impunity. During the summer of 1956 the *Olympic Challenger* and its catchers were sold to a Japanese company, and the Olympic Whaling Company ceased all whaling activities. This was interpreted in the Norwegian press as an indicator that Onassis was getting out of the whaling business because of the adverse publicity resulting from the disclosure of so many infractions committed by his company. Onassis's payment of $3 million to the special fund was also seen as an admission of illegal whaling. A more logical explanation for the sale is that Onassis was astute enough to find more remunerative investment opportunities for the funds tied up in his Olympic Whaling Company. There is some indication that after the first few seasons the whaling operation was not regarded by its backers as a booming business venture. During the 1953/54 whaling season the *Olympic Challenger* was used not for whaling but as an oil tanker. Furthermore, statistics show that the Panamanian whaling fleet was not very efficient. While off the coast of Peru the *Olympic Challenger* killed 680 baleen whales (enumerated above) for a total of 415 blue-whale units. Oil production from these was 54 barrels per blue-whale unit. Production by other companies in the Antarctic always averaged over 100 barrels and usually about 118 barrels per blue-whale unit. Production at such a low level of efficiency could hardly have been remunerative.

Legal responsibility for the infractions committed by the *Olympic Challenger* must be placed on the Panamanian government rather than on Onassis or the managers of the Olympic Whaling Company. The principle of the freedom of the seas grants to every nation the right to use the resources of the high seas in any manner it chooses. Any regulations governing the use of those resources must be accepted by a nation before its citizens or corporations are subject to them. The Republic of Panama was a member of the International Whaling Commission in name only. At most meetings of the Commission, Panama by its own choice was not represented; the government did not care to send a delegate. Panama was usually many years in arrears in its annual contributions to the operating budget of the Whaling Commission (annual contributions ranged from £150 to £300). As a member of the commission, Panama did place 2 inspectors on the *Olympic Challenger* to ensure compliance with the regulations adopted by the Commission. The negligent practices of the Panamanian inspectors and the false infraction reports submitted by them showed them to be either incompetent or corrupt (the evidence points to corruption but does not rule out incompetence). The Norwegian Foreign Office sent proof of the infractions to the government of Panama, which replied that the Panamanian inspectors were officials of the government and the government could hardly repudiate itself. Subsequent notes of protest by Norway to Panama went unanswered.

The government of the Republic of Panama obviously was not concerned with enforcing regulations adopted by the International Whaling Commission. Nor was Panama interested in participating in the formulation of those regulations. The actions and attitudes of the government of Panama had destructive consequences on the high seas. Their only virtue was a lack of pretense of concern for the fate of the blue whale and its congeners.

The International Whaling Commission exemplifies everything that we hope the Commission proposed under H.R. 10420 will not be. It is industry-dominated, yet is able to hide behind its scientific advisers who, despite the fact that their views are often ignored by it, doggedly defend it in public. Industry with a scientific veneer is a dangerous enemy of true conservation. The International Whaling Commission is a classic example of wildlife management gone wrong, and I would suggest that anyone who defends this travesty be automatically disqualified from serving on the Commission or scientific committee proposed in H.R. 10420. If our country should have the misfortune to create a miniature IWC to decide the fate of marine mammals, then these hearings would have been in vain, and we would be moving backward rather than forward.

I went to visit the headquarters of the IWC in London earlier this year and was shown into a narrow office crammed with stacks of reports. Certainly no one could complain that spendthrifts were in charge. It is hard to envision the casual payment of fines of millions of dollars by companies supposedly controlled in this cramped and shabby room with its single youthful occupant. The result of my visit was a letter informing me that I would not be permitted to attend as an observer at the Commission's meetings in Washington this June.

Mr. Chairman, there has been an attempt to emphasize the difference in views of the so-called pure protectionists and the wildlife managers. This is regrettable. Both groups, however determined that they have a monopoly on being right, could adopt a good deal of each other's philosophy to the advantage of the animals. In this age of polluting and overharvesting of the food on which ocean mammals are dependent, and at a time when the passion for motorboats is known to be endangering the manatees and southern sea otters, how can the pure protectionist turn his back on studies of the conditions under which the animals live and have to seek their fortune? The propellor wounds we were shown on the back of the manatee in Dr. Hartman's slide must have been very painful, and he stated that the chief source of manatee mortality is speeding motorboats. The manatee already has total protection by State law, and certainly Federal law should give it total protection, too. But it needs more than that. The studies of scientists like Dr. Hartman should be continued and fostered under the act which the subcommittee approves. We should continue to learn about the condition of the mammals of the sea, and the great bulk of those studies should be performed without killing the animals.

Here is the place where the traditional management techniques need modification in dealing with these most remarkable of mammals. The survivors of a gruelling evolutionary process which enables air-breathers to spend so much time in another element simply cannot be treated as units in a ledger of profit and loss, as targets for the marksman, as readily expendable exhibits, or subjects of lethal experiments.

Management practices which are known to be detrimental to the animals, such as the flipper-tagging of seals which has proven to contribute to a high mortality of the tagged animals, should not be continued. Humane substitutive methods of marking should be used if available, developed if not available.

Where studies of dead animals are needed, and they are essential in assessing the effects of pollution, the use of recovered carcasses as described by Judson Vandevere of Hopkins Marine Station of Stanford University should be encouraged.

Observation of living sea mammals may be difficult, but it is not impossible, and it has never led to the disastrous mistakes made by the whaling scientists whose data collection was from dead animals only. Professor Small documents on pages 27–32 of "The Blue Whale" the total confusion surrounding the "knowledge" of the whales' ages.

> The specific knowledge of age at sexual maturity was attained when its commercial life was 95.2 percent over. In other words by that time the Japanese scientists confirmed Ruud's findings. 95.2% of all the blue whales taken in the history of the antarctic whaling had already been killed.

What brought about the discovery that blue whales cannot breed at age 2, as prestigious whaling scientists had caused everyone to believe? "An Enforced Moratorium Caused by the Second World War."

> When whaling was resumed in 1945 it was quite evident that the stock of blue whales had not increased significantly. There were fewer very young blue whales but evidently those born early in the war had made no contribution to the population. Sexual maturity at age 2 was obviously wrong.

This monumental error of whaling scientists undoubtedly contributed to the pathetic status of the blue whale (estimated at 600 to 3,000 individual animals) today.

These hearings have demonstrated that what we don't know about ocean mammals is so vastly greater than what we do know, that the potential value of the different species may well be enormous, not in terms of fur or meat or oil, but in terms of each one's special adaptations, particular form of intelligence, peculiar abilities in dealing with life in an element where man is at a great disadvantage.

The polar bear, a creature about whose travels scientists continue to argue, is probably the teacher of the first men to live in the arctic. In "The World of the Polar Bear" (University of Washington Press, 1966) Richard Perry describes (p. 20) the mother bear's den.

> The passage, which slopes slightly upward, preventing the warmed air of the interior escaping, leads over a low separation wall into a spacious oval-shaped chamber about six feet long and four feet wide. A polar bear's den is clearly the prototype of the Eskimo's *iglooriuk* or snow house. . . . More elaborate dens have been described. One on Svalbard was divided into two chambers, each ten feet long and five feet wide, connected by a narrow passage. One chamber had apparently served as a birthplace and sleeping place, the other as a playroom for the cubs.

It is my hope that these hearings and the legislation developed what the mother bear did for herself in the wild to realize that they must supply heat and privacy for her and the newborn cub if cubs born in captivity were to survive. These are such elementary observations that it is startling to learn that they were not made for many years. Actually, it is only one more example of what I believe to be the prime cause for so much ignorance, so many mistakes, and failure to see the obvious: that is, lack of respect for and appreciation of the capabilities of nonhuman mammals, especially sea mammals.

It is my hope that these hearings and the legislation developed from them will establish the mammals of the seas as deserving of attention in their own right, and as potential teachers of men, not as rugs and grease for cars and food for mink. If such respect animates scientific studies concerning them, these studies will be far more fruitful in advancing our civilization.

Questions concerning the relationship between Eskimos and marine mammals have been raised several times at these hearings, but little has been said about the knowledge which might still be acquired from Eskimos concerning these animals. For example, Richard Perry in "The World of the Polar Bear," notes that the Chukchee people claim to be able to differentiate between the bears which permanently inhabit their coasts, and the oceanic visitors which reach them on the drift-ice. We badly need acute observers of sea mammals whose experience and life style has accustomed them to make close and careful observations in all kinds of weather, to look and listen intently. Provided with appropriate equipment, such Eskimo observers would photograph with precision and artistry for documentary purposes. Such work is worthy of the most able and dignified persons both young and old, and if adequately financed by our Government and carried out under supervision of a broadly constituted Commission with a genuine interest in the development of knowledge and understanding of marine mammals, I believe it would result in the acquisition of important scientific knowledge which would be exceedingly difficult to obtain by other means.

We need to get away from establishment attitudes, Mr. Chairman, if we are going to learn about marine mammals and the ecological relationships in the oceans about which they are so eminently well-fitted to inform us. The appropriate employment of Eskimos as observers of the living animals is one practical way to do this.

The Society of Animal Protective Legislation will support either the Pryor bill, H.R. 6554, or the Anderson bill, H.R. 10420, if the bills are amended to contain essential features which we believe to be necessary.

H.R. 6554 lacks any provision for increasing information about the mammals of the sea, the state of their habitat, and dangers to them from pollution, starvation, and accidental wounding and death from motorboats and similar hazards. If H.R. 6554 is used as the basic structure, it should be strengthened by providing for such studies and for the promulgation of regulations to protect sea mammals from these dangers.

I will go into more detail in suggesting amendments to H.R. 10420, since it appears that this is the bill which will serve as the basic structure for subcommittee action. The following amendments are respectfully suggested:

Section 2(2), page 2, line 2, omit "managed on an optimum sustained yield basis" and substitute "can be shown to withstand mortality caused by pollution, accidents, and natural causes."

Section 3(4), page 3, lines 8–10, omit "but such term does not include the taking of marine mammals which occurs as an incident to commercial fishing operations."

Section 101, page 4, line 18, add: "(5) for any person to import into the United States any marine mammal or part thereof, transport, sell, or offer for sale any such mammal or part thereof in interstate commerce."

Section 102(a)(2), page 5 lines 5–6, omit "and can be managed on a sustained-yield basis.

Section 103(a), page 6, line 17, omit period and add: "except that in order to permit appropriate study for a period of 10 years following enactment of this act, no permits shall be issued for commercial taking of any whale, sea lion, polar bear, walrus, dugong, manatee, sea otter, porpoise, dolphin, or seal except in accordance with section 103(3) and 110 of this act."

Section 103, page 8, line 11, add: "such information must include conclusive proof that no harm will be caused the population stock if a permit is issued."

"(e)(1) One year after enactment of this act no method of commercial fishing shall be used whereby any porpoise or dolphin is injured or killed incident to the capture of the fish.

"(2) The Secretary shall issue regulations to reduce to the minimum the numbers of porpoises or dolphins injured or killed incident to purse seining for tunafish, during the year following enactment of this act."

Section 107(b)(1), page 12, line 16, omit period and add: "if such public display, educational purpose or research is proved to the satisfaction of the Secretary to be necessary."

Section 107(b)(2), page 12, line 18, add, following "methods of capture, supervision" the following: "care,housing, treatment,".

Section 201(b), page 16, line 3, omit "and resource management" substitute "or marine mammals affairs," and add "who have not been nor are in a position to profit from the taking, processing or sale of marine mammals."

Section 202(a)(2), page 17, line 10, following "conduct a continuing review" add: "and study": line 12 following "management," add: "including the development of methods of fertility control."

Section 202(a)(3), page 17, line 15, following "studies" add: "in particular those which can be conducted on living sea mammals free in their natural environment.

In addition to these suggested amendments, we would like to raise the question as to what inspection procedures will be available to determine section 103(b)(2)(B) that a mammal permitted to be taken by the Secretary is taken in a manner determined by him to be humane? Who will be the enforcement officials for this and other requirements for taking animals under permits? We hope this will be clearly spelled out in the bill and that funds for enforcement will be specifically authorized. We also believe that methods for capture, transporting, housing, handling and treatment of marine mammals as well as methods of killing approved by the Secretary should be published in the Federal Register so the public may have an opportunity to comment on them before they become final.

In conclusion, the importance of the international aspects of this legislation deserve emphasis. It is vitally important that we do everything in our power to persuade the Russians and Japanese to stop commercial whaling for a period of at least 10 years. The Russians have banned the killing of polar bears since 1956 and the killing of dolphins since 1966. If we stop the killing of these marine mammals by American citizens, we may have a good chance of obtaining reciprocal action on the wholes by the U.S.S.R. Vigorous efforts should be made to accomplish what would be the greatest international conservation victory ever achieved. The Russian factory ships could be used for oil tankers as other factory ships have been before.

A Russian delphinologist, Professor Yablokov, wrote:

> . . . human society is the most highly complex group that we know of. But that of the dolphins, too, is extraordinarily complex. Suffice it to say that up to ten generations coexist at one time in dolphin societies. If that were the case with man, Leonardo da Vinci, Lomonosov, Faraday and Einstein would still be alive . . . Could not the dolphin's brain contain an amount of information comparable in volume to the thousands of tons of books in our libraries? Whatever our opinion of the dolphin, it will not be more than a human judgment due to the limitations on our knowledge.

The legislation being considered today will, we hope, lead to more knowledge and appreciation of the dolphin and the other sea mammals and more consideration and restraint in our behavior toward them.

Are there any questions?

Mr. DINGELL (presiding). We are grateful to you for your very helpful statement.

The Chair notes that you have made several submission to the committee and they will be inserted at the appropriate place.

We do thank you for your suggested amendments.

We thank you for your very helpful testimony today.

Mr. Keith?

Mr. KEITH. Are you going to give the Members of Congress a chance to ask questions?

Mr. DINGELL. I just asked if there were any questions.

Mr. KEITH. I guess I was on the phone.

Mr. DINGELL. I suggest you will have to pay close attention on this committee.

Mr. KEITH. Thank you.

Mrs. Stevens. I represent New Bedford. The history of its interest in whaling and the situation that confronts us today, there is still one firm left in New Bedford that uses the oil from small whales to treat delicate instruments.

It is apparently a very rare oil and one that is quite essential.

Mrs. Stevens. Well, I am informed that while that oil is very good it is not irreplaceable and, in fact, Secretary Hickel stated at the time he put the last of the commercial species of whales on the endangered species list that, in fact, there was nothing except the meat which is the way he put it, that could not be synthesized or otherwise replaced so that I believe that your firm will find that they can replace it.

Just for example the National Science Teachers Association where we had a booth concerning the saving of whales, one of the teachers said that a friend in Colgate-Palmolive had just told her that I always used to buy ambergris simply because it was on the market and now they could not buy it because of Hickel's ban and they used a synthetic and it was exactly just as good.

I cannot give you the name of what the substitute would be, but I am certain it is not going to do the firm any harm to change.

Mr. Keith. A different subject, but related to the same problem.

I had a phone call from my daughter last night. She is intrigued with these advertisements in the Boston papers. She is looking for some trained seals and will research this matter.

Do you happen to know if in the Boston area, they are using humane care for their inmates?

Mrs. Stevens. I am sorry to say that I am not familiar with the Boston aquarium but if you would like me to check it out, I would be delighted to.

Mr. Keith. I would appreciate it. I know the people who have funded the program, the Stone family largely, are very fine people who are interested in education and who have done charitable and educational work. I am sure they would like you to comply.

I believe it is a unique situation, along the entire eastern seaboard at least.

Mrs. Stevens. I also think you might wish to check with Mr. Horstman of the Sea Mammal Motivational Institute.

I think you missed his testimony but I believe he could be very helpful to you.

Mr. Keith. Now, I note that you have an amendment which certainly meets with my approval, at least at first glance to section 107 (b), page 12, line 18, method of capture, supervision, and add the following: care, housing, and treatment.

Have you any "for instances" that have not been put into the record and that would add to our motivation?

Mrs. Stevens. Yes: there are bad cases of mistreatment.

For example, I have seen a dolphin confined in a pool really not much larger than this little area in front of me just able to swim around and around and he would look out, look at you with such a feeling eye that it was really a very unnerving thing.

That was in Florida, Mr. Keith, and there are examples of that all over the country.

The magazine "Animals" which is edited by Mr. Sidwell is an international magazine and has just come out with an editorial objecting to the capture of any more dolphins or porpoises which are becoming more and more popular. I mean you can go in right in the middle of London and see a dolphin act right now and it is becoming more and more common.

Of course, they are such marvelous animals. That is the reason why.

Mr. Keith. I would like to learn more of that.

One final question: You mentioned the population and control by use of [illegible] methods. Do you have some secret you want to share with the committee in this respect?

Mrs. Stevens. More work needs to be done. That is the recommendation in the proposed amendments that studies be carried out under this legislation to make that possible.

It apparently works very well with pigeons and there has been some use of it for coyotes in the Department of Interior.

I have a paper, not with me, but it has not been tried nearly as much as it should be and I believe there was a demand for it and if there was a little money for the research it could be pushed along quite rapidly now.

Mr. Keith. Do you recall some 15 years ago that Congress appropriated $84,000 to determine whether or not there were extraordinary means of communication between mammals, in general, and porpoises in particular? Are you aware of this?

Mrs. Stevens. Would that have been Dr. Lilly?

Mr. Keith. I do not know. I just wondered if you were aware of it and whether there was any contribution that study might make to your case.

Mrs. Stevens. I think that I am not sure about that study because I do not know what the results of it were.

I do feel that the Navy has done a great deal of work with porpoises which has not been brought out at these hearings. That is the one place where Federal funds have been spent, I think more generously than in most other agencies.

We have just clippings that tell about some of the porpoises and what they are able to do.

For example, there is a porpoise named Doris that they put rubber suction caps over her eyes so she could not see and she could go and differentiate between I think copper and steel, two types of metal just by using her sonar.

These are remarkable tests and also show the wonderful cooperation of the porpoises with the human being and why it is you can do so much scientific work with them without doing anything either painful to them or certainly not killing them.

In other words, the porpoise will cooperate. They are quite willing to do so and we hope that is the kind of study that will be mainly carried out under this act.

Mr. Keith. Thank you very much.

Thank you, Mr. Chairman.

Mr. Dingell. Thank you, Mr. Keith.

Mr. Kyros.

Mr. Kyros. I would like to add my commendation to the chairman's welcome, Mrs. Stevens. I think your suggestions and recommendations will be most helpful to the committee.

You have testified in behalf of the Tennessee walking horses and you have been instrumental in forming legislation pertaining to the treatment of laboratory animals. You are a marvelous person, and I certainly admire your fine work in behalf of animals.

Mrs. STEVENS. Thank you.

Mr. DINGELL. Thank you, Mrs. Stevens. It is always a pleasure to have you with us.

Our next witness is Mr. Daniel A. Poole of the Wildlife Management Institute.

We are aware of the fact that you have waited so long, Mr. Poole.

STATEMENT OF DANIEL A. POOLE, WILDLIFE MANAGEMENT INSTITUTE

Mr. POOLE. Thank you, Mr. Chairman. I think the mind absorbs what the seat can tolerate and I am not going to subject myself to more brilliance even if it is my own.

Mr. DINGELL. That will be much appreciated.

Mr. POOLE. The institute is one of the older national conservation organizations, and its program has been devoted to the restoration and improved management of renewable natural resources in the public interest since 1911.

As the committee is aware, two different proposals relating to marine mammals are before it. The first of these is exemplified by H.R. 6554 and many identical introductions; the second, H.R. 10420, is by several members, including some from this committee.

Before turning to the bills, I want to make a few brief observations which have a bearing on the subject under consideration. In reality, these observations apply to any species or animal population.

The first of these is that in this day of rapidly expanding human population and the accompanying alienation and impairment of natural habitat, plus the mounting demand resulting from more people, it is necessary and desirable to deliberately manage some animals stocks. Normally, all species do not require equal attention at any one time. Identification of species or population segments of species requiring priority attention depends on factual information gathered and interpreted by specialists. In the normal course of events, species requiring special attention are those whose habitat requirements are very specific or limited, such as the Kirtland warbler in Michigan; those having commercial value such as the American alligator, spotted cats and others; and those likely to be abused because of tradition and economic considerations, such as wolves, coyotes, and birds of prey.

Another point that must be kept in mind is that management of a wildlife population runs full scale from the outright prohibition of taking to controlled harvest. Management decisions, that is, whether to prohibit taking or to permit harvest, including the number, time, location, and other pertinent details, of necessity, should be based on the judgment of persons qualified by training and experience to evaluate the many biological factors that must be taken into account. It was this judgment factor, for example, that led wildlife authorities to approve the Massachusetts Audubon Society's request to deliberately kill herring and black-backed gulls on an offshore island of that State. The purpose of the poisoning was to remove gulls so that the island once more could be used for nesting by the less numerous common, roseate and Arctic terns, which regularly nested there prior to the gull population increase. In time, it may be necessary to repeat the poisoning if tern nesting is to be encouraged, because few animal populations, contrary to some television programing, remain static in even the most natural of conditions. Gull populations along the east coast have expanded greatly in the last several decades.

Another point I want to make is that preservation is not a substitute for conservation or management. In fact, we much prefer the word "management" to "conservation" in this instance, because the latter is subject to many misinterpretations in the public mind. There is a need to be precise because this is an emotion-charged subject, and the many concerned laymen should not be misled into believing that all marine mammals are threatened by man's excesses or that any threats that may exist will be allayed by any single or simple action.

In this day of expanding population, rapid mobility, and complex technology, we cannot accept the risks inherent in "hands off" preservation. To reject management programs based on scientific fact and professional execution, in our view, would be to expose at least some population segments of some species to possible depletion. To do so would be to ignore the great progress that has been made in restoring many once-depleted populations of native animals. The well-being of a species is a primary goal of wildlife management.

For this reason, Mr. Chairman, we cannot accept the thrust and philosophy of H.R. 6554 and identical bills. While I do not criticize the motive of those bills, the plan they offer is negative. The plan holds no constructive program for the better protection and enhancement of marine mammals. It suggests, in fact, termination of the International Convention on the Conservation of North Pacific Fur Seals, which, without question is responsible for restoring that once-misused mammal to an abundant and productive population level. Our several objections to the H.R. 6554 kind of approach are detailed in the attached reprint from the Congressional Record, which carries letters to the President and to all Members of Congress signed by the leaders of many of our most important national conservation organizations as well as other supporting information. As the national organizations noted in their letter to the President:

> The application of science, not emotion, has brought back the fur seal and the sea otter from the shdows of extinction to their thriving and productive population levels of today.

In the remaining few minutes, I want to discuss the elements of a constructive program for marine mammals. First, I want to make clear that the Institute long has been an advocate of strengthened programs for marine mammals. As the chairman knows, we have discussed this many times. Unfortunately, however, it has not been possible to get administration officials or Appropriations Committees interested in the subject.

A sound program for marine mammals should provide adequate authority, funding, and manpower, should seek active full-partner input by State wildlife agencies in program development, and in research, management, and law-enforcement activities, and should direct appropriate Federal officials to intensify efforts to reach new international agreements and understandings.

It should be fully understood that any marine mammal legislation that may be enacted for the United States will not end misuse of these animals by other nations. Canadian baby seal killings, the use of set guns for polar bears in the Svalbard, procrastination in the International Whaling Commission, and all the other activities will go on. There is a limit to what we can do by ourselves.

Of the legislation before the committee, H.R. 10420 comes the closest to meeting the requirements of a basic marine mammal program. We believe it can be greatly improved, however, and we offer the following comments with the thought of helping the committee to develop the best possible bill.

Section 2(2), the meaning of the word "optimum" is unclear. The goal should not be solely to restore species or stocks so that they may be managed on a sustained yield basis. Rather, action should be taken to restore species or stocks found to be in a depleted status in terms of the capability of their habitat to support them and of society to accept their presence. Once restoration is achieved, then management decisions may be made whether to permit a harvest. If a harvest is permitted, then good management automatically decrees that it be consistent with the long-term population plan for the species.

Section 2(4), line 12, as explained earlier, the word "management" is preferable to the present use of the word "conservation."

Section 3(3), under present Government organization, responsibility for marine mammals is split between the Secretaries of Commerce and the Interior. Is it the intent of the committee to vest the entire responsibility in the Secretary of the Interior? Care should be taken to eliminate all obstacles, administrative and otherwise, to a strengthened Federal effort.

Section 3(4), information recently available suggests that large numbers of some species of marine mammals may be killed and wasted as a result of some kinds of commercial fishing operations. The waste is reported to be of such a magnitude as to be unacceptable; and somewhere, either in this legislation or the program that it contemplates, research should begin immediately to determine kinds of gear, fishing techniques, and other steps, including development of markets for the presently wasted resource, to turn these animals to man's benefit. Perhaps impetus could be given for this by writing a requirement into section 102(c), directing the Secretary to issue periodic statements on existing and known impacts on marine mamals from man's activities such as commercial fishing, and steps being taken to overcome them. Further, and in the absence of evidence to the contrary, the exclusion of commercial fishing in section 3(4) may not be justified.

In sections 102, 103, and perhaps elsewhere the word "limitations" is used several times. This has essentially a negative connotation, not particularly compatible with the positive thrust of the proposal. We suggest that the words "rules and regulations" would be much more appropriate.

Section 101, "Prohibitions," begins with a clause providing exceptions for sections 102, 107, and 109. Section 101 deals with taking, possession, transport, and importation of marine mammals or their parts. The other three referenced sections deal only with the taking of marine mammals. No provision apparently is made for exceptions to the blanket ban on possession, transport, or entering a harbor or port. As presently drafted, it appears that an individual may be permitted to take a designated animal, but would be prohibited from possessing, transporting, or taking it into a harbor or port.

Under section 3, "Permits," no mention is made whether the permits are to be granted with or without charge. This, of course, raises fundamental questions about traditional State rights regarding resident species of wildlife. This whole matter is in legal limbo to say the least, and we would caution the committee that the historic interest and rights of the States are involved. Up until now, the States and the sportsmen who purchase licenses and pay other special fees have carried and are carrying most of the burden and responsibility for wildlife. Perhaps accommodation of this is contemplated in section 109, but, as I note later, the wording there is so vague as to be unclear.

Section 108—our reaction is favorable. International arrangements and agreements, as we spelled out in the beginning, are of utmost necessity for the expanded and improved management of marine mammals. Only this area offers any substantial promise for progress. Unilateral action by the United States will be relatively meaningless.

Section 109, "Cooperation with States," in our view requires considerable expansion and clarification. Our reaction to this overall section is that the present draft is unmindful of the interest of some States in marine mammals, and that, as a result, their interest is minimized and their rights ignored. California, for example, is rightfully proud of the protection that it has given the sea otter and elephant and fur seals. The agency has forcefully and successfully withstood the pressures of commercial groups.

Alaska enforcement officers work to prevent misuse of sea otter, polar bears, walrus, and seals. Alaska has pioneered in work with sea otters, among other things perfecting techniques to live trap, transport, and release the animals in suitable, but unoccupied, range. The State agency has worked actively to restore the interesting animal to its historic range there. Oregon, Washington, and British Columbia made use of this knowledge, and with Alaska's gift of sea otter, have reestablished and are protecting free-roaming populations of the animals in their coastal waters. Alaska and California wildlife agencies, under State law, are responsible for protecting and managing all marine mammals out to the 3-mile limit. The Washington Legislature recently conferred the same responsibility on the wildlife conservation agency there. In Oregon, the responsibility is split between the State game and fish commissions.

Much of the success of what H.R. 10420 is seeking to do hinges on obtaining the close support and cooperation of the appropriate State wildlife agencies. There is considerable question, I am sure, over the legality of the Federal Government seeking to assert responsibility for some species historically considered property of the States. We believe, and strongly urge, that the Federal Government should grant 100-percent financial support for approved State programs of research, management, and law enforcement done as part of a coordinated and cooperatively developed marine mammals management program. This could be patterned after the successful anadromous and Great Lakes fisheries conservation program. The cost would be small, and the rewards would be great. The few coastal States that would be involved can offer experienced and knowledgeable personnel, established enforcement staffs, research facilities, and such necessary equipment as boats and airplanes.

The language of section 109 should be developed in close cooperation with the States, and we suggest that the committee contact the International Association of Game, Fish, and Conservation Commissioners, which is the official organization of State, provincial, and other wildlife agencies. As I stated, much of the success of a marine mammals management program rests on securing the cooperation of the affected States. Everyone must realize that the States are interested in the resource and have supported research in addition to management and law enforcement efforts. Present demands on their funds make it impossible to do as much as they would like. They are not unlike other elements of government, including the Federal Government, in their need for funds.

Section 110—North Pacific Fur Seal Convention—On page 14, line 4, the words "curtailed" or "terminated" are negative. It is possible that the convention should be expended or continued. Therefore, we suggest that the word "amended" would be more appropriate and in keeping with the thrust of this proposal.

Section 110 raises another question. If, as the language currently suggests, the convention were to be curtailed or terminated, the supposition must be that the fur seals are found to be in decreasing population status. If this is so, then why would the settlement require the killing of 18,000 animals annually as is proposed in paragraph (2) of that section? Such an action, as I hope my statement earlier made clear, would be contrary to the principles of wildlife management. Decisions should be based on biological factors, not arithmetic.

TITLE II—MARINE MAMMAL COMMISSION

We believe that creation of a commission as proposed would be wastefully expensive and of little value. We would much prefer to see the money and effort that would be lavished on another layer of unnecessary bureaucracy invested in a cooperative Federal-State marine mammals program of the kind we have described. The commission can do nothing, in our view, that the Secretary is not already empowered and better equipped to do. The commission would be competitive with the Secretary, both for support funds and for the design and implementation of the overall program. Some may argue that a commission will perform a watchdog function. But how many watchdogs do we need? Congress has oversight responsibility, and if it is not going to be used, then we will need watchdogs to keep an eye on the watchdogs.

We believe that the resource would benefit from the appointment of a Scientific Advisory Committee on marine mammals to the Secretary as generally contemplated in section 203. The Secretary already has authority to appoint committees, and Congress' instruction that this be done may be helpful in getting such a committee appointed and necessary funds appropriated for its functions.

Again, we would suggest that the Advisory Committee have represented among its membership knowledgeable scientists from the State agencies most intimately concerned with the management of the marine mammal resource. Through exercise of its oversight responsibility, Congress can help keep the program on track and moving ahead.

In summary, Mr. Chairman, we do not accept the philosophical thrust of H.R. 6544 and similar bills. As biologists, we do not believe that an animal species or population can be aided, when help is needed, by ignoring it. Our national wildlife restoration record has too many excellent examples to the contrary. Time and time again, man has demonstrated his capability to aid wildlife through the application of scientific knowledge. This is no time to discard the formula for success.

The Institute endorses the objectives of H.R. 10420. We urge that the bill be rewritten so as to give it a positive thrust, to bring the interested States strongly into the design and implementation of the necessary research, management, and enforcement phases of the program, and to call upon the Secretary, as necessary, to create and appoint an expert advisory board and to administer the Federal phases of such a program.

Mr. Chairman, I am attaching a copy of a Congressional Record, volume 117, dated June 29, 1971, reading "Opposition to Ocean Mammal Protection Act."

With your permission I would submit this for the record.

Mr. Dingell. Without objection, it will be placed in the record at this point.

(The material follows:)

[From the Congressional Record, June 29, 1971]

OPPOSITION TO OCEAN MAMMAL PROTECTION ACT

Mr. Stevens. Mr. President, in a speech delivered to this body on June 4, 1971, I expressed strong opposition to S. 1315, the Ocean Mammal Protection Act, and similar legislation now pending in the House. In this speech, I contended that the enactment of S. 1315 would be extremely unwise from both an ecological and an economic point of view.

In my remarks, I also mentioned that my staff had contacted Mr. Tom Kimball, director of the National Wildlife Federation, and Mr. Dan Poole, president of the Wildlife Management Institute, both of whom oppose S. 1315 in that it prohibits prudent management on the Pribilofs and requires the termination of the North Pacific Fur Seal Convention.

This view is also held by the leaders of many other prestigious and knowledgeable conservation groups. In separate letters to President Nixon and to all Members of the House and Senate, these leaders stated that programs for the protection and scientific management of marine mammals are being threatened by well publicized, but misguided efforts which, if successful, would destroy the operation of biologically sound activities conducted by the State and Federal conservation agencies. The letters made clear that the "hands off" policy proposed in S. 1315 and similar House bills would severely jeopardize the efforts of responsible fish and wildlife agencies to manage their marine mammals programs in a scientific manner. Thus, the ability of these mammals to survive and prosper would be adversely affected.

The conservationists signing the letter to the President were Mr. William E. Towell, executive vice president of the American Forestry Association; Spencer M. Smith, secretary of the Citizens Committee on Natural Resources; Chester F. Phelps, president of the International Association of Game, Fish, and Conservation Commissioners; Joseph W. Penfold, conservation director of the Izaak Walton League of America; Charles H. Callison, executive vice president of the National Audubon Society; Maxwell E. Rich, executive vice president of the National Rifle Association of America; C. R. Gutermuth, secretary of the North American Wildlife Foundation; Richard H. Stroud, executive vice president of the Sport Fishing Institute; Fred G. Evenden, executive director of the Wildlife Society; Ray A. Kotrla, Washington representative of Trout Unlimited;

Daniel A. Poole, president of the Wildlife Management Institute; and Ira N. Gabrielson, president of World Wildlife Fund.

The letter to House and Senate Members, which was accompanied by a comprehensive fact sheet, was signed by Harold J. Coolidge, honorary chairman of the American Committee for International Wild Life Protection; Robert F. Hutton, secretary of American Fisheries Society; William E. Towell, executive vice president of American Forestry Association; Frederick C. Pullman, president of the Boone and Crockett Club; Spencer M. Smith, Jr., secretary of the Citizens Committee on Natural Resources; Chester F. Phelps, president of the International Association of Game, Fish, and Conservation Commissioners; Joseph W. Penfold, conservation director of the Izaak Walton League of America; Maxwell E. Rich, executive vice president of the National Rifle Association of America; Thomas L. Kimball, executive director of the National Wildlife Federation; C. R. Gutermuth, secretary of the North American Wildlife Foundation; Richard H. Stroud, executive vice president of the Sport Fishing Institute; Ray A. Kotrla, Washington representative of Trout Unlimited, Daniel A. Poole, president of the Wildlife Management Institute; Fred G. Evenden, executive director of the Wildlife Society; and Ira N. Gabrielson, president of the World Wildlife Fund.

In order that the contents of these letters can be shared with the Members of this Body and all those who read the Congressional Record, I ask unanimous consent that they be printed in the Record.

There being no objection, the letters were ordered to be printed in the Record, as follows:

JUNE 18, 1971.

To all Members of the House and Senate:

An organized press and television campaign is underway to solicit support for banning the taking of certain marine mammals. House and Senate bills to accomplish this are H.R. 6554, S. 1315, and others.

The undersigned national conservation organizations believe such a step would interfere with the needed scientific management of these interesting and valuable animals. Some of these highly migratory animals can be managed only through international agreements. Others come under the various jurisdictions of federal and state government.

Total protection, as is being urged, would halt a number of management programs, some of which have been remarkably successful. The application of science, not emotion, has brought back the fur seal and the sea otter from the shadows of extinction to their thriving and productive population levels of today.

Total protection also would make it impossible to manage any population of marine mammals even though, under future circumstances, a culling may be desirable in the interest of man or to reduce local overpopulations that usually are detrimental to the species itself. In some cases, protection also would eliminate urgently needed sources of income to Eskimos, Aleuts, and Indians and revenue for state and federal treasuries, as well.

We believe that adoption of such a negative policy would be a serious mistake. We believe the government should strengthen its management authorities, including providing more funds and manpower, and should explore new and more effective international agreements. We believe that there is no substitute for scientific fact when it comes to assuring the perpetuation of any species.

The accompanying fact sheets provide more detailed information on the status and management opportunities for marine mammals, should you have the time or need to read them.

Sincerely,

Harold J. Coolidge, Robert F. Hatton, William E. Towell, Frederick C. Pullman, Spencer M. Smith, Jr., Chester F. Phelps, Joseph W. Penfold, Maxwell E. Rich, Thomas L. Kimball, C. R. Gutermuth, Richard H. Stroud, Ray A. Kotrla, Daniel A. Poole, Fred G. Evenden, and Ira N. Gabrielson.

THE HARVEST OF THE PRIBILOF SEALS

The northern fur seal is a creature of the high seas, the open water. It comes ashore only to breed and bear its young.

Each year the fur seals leave the mist-shrouded rookery islands of the North Pacific to migrate as far south as California, as far west as Japan. And each year their mysterious homing instinct draws them back across the ocean to the same rocky nursery isles.

The adult male, or bull, may weigh 500 pounds or more and the female about 100 pounds. Harems are composed of one bull and as many as 100 females, although the average harem has about 40 females. The pups are born in the early summer and weigh about 10 pounds at birth. By the time they depart for the sea in the late fall, the pups may weigh 30 pounds or more.

The seal is a commercially valuable animal. Its furs are prized for coats; the meat is consumed both by humans and by animals. The annual fur seal harvest on the Pribliof Islands is virtually the sole source of gainful work for the 600 Aleuts who live in its two communities.

The seal herd of the Pribilofs today is thriving, its number estimated at 1⅓ million animals. Its return from a dangerously low level of 200,000 in 1911 is a historic story in the annals of man's effort to conserve wildlife.

That story began when the indiscriminate slaughter of northern fur seals on the high seas was ended.

In the 18th century, the seals' rich fur made them targets of intensive hunting in the Northern Hemisphere.

The Russians discovered the Pribilof Islands in 1786. In the ensuing years Russian hunters reportedly took 2.5 million seal pelts. Initially, harvesting was uncontrolled, breeding females were unprotected and the Pribilof herds were reduced to remnants. In 1834, when the seals had been almost annihilated, the Russians stopped killing females and the herd began to increase. By 1867, when the U.S. purchased Alaska, (including the Pribilofs) the Pribilof herd had recovered to the point that it sustained an annual harvest of 100,000 males for many years.

The United States began its jurisdiction by permitting a number of independent companies to operate. In the first season 300,000 skins were taken. To protect the fur seals, Congress in 1869 set aside the Pribilofs as a special reservation. During the next 20 years, sealing on the Pribilofs was conducted under a leasing arrangement, with some 2 million sealskins taken. A second 20-year lease produced only 343,000 skins, and in 1910 the Federal Government assumed direct management of the approximately 200,000 fur seals that survived.

During this 40-year period, killing at sea had continued. American, Canadian, and Japanese sealers had shot and speared fur seals from ships. They could not tell the sex or age of the animals, many of which were lost through wounding or sinking. When a nursing mother was killed it often meant slow starvation for her pup.

From 1879 to 1909, almost one million fur seals were taken at sea. No one knows how many more were wasted.

The open sea killing was halted by international agreement in 1911, when the United States, Great Britain, Japan, and Russia concluded a convention for the protection of the North Pacific fur seal. In exchange for the ban on pelagic sealing, the United States and the Soviet Union, under the agreement, provide Japan and Canada each with 15 percent of the harvest from the Pribilofs and 15 percent of the harvest from those islands under jurisdiction of the Soviet Union.

In addition to the conservation of the seal herd made possible by this agreement, there is now an economic gain for the State of Alaska, which by the Alaska Statehood Act obtains 70 percent of the net proceeds from the sale of Alaska sealskins.

The majority of sealskins are presently utilized by the European market. A ban placed on the importation of seal pelts into the United States would have little, if any, effect on world seal harvests.

In the United States, the Ful Seal Act of 1966 charged the Secretary of the Interior with management of the fur seals. This responsibility was transferred to the Secretary of Commerce on Oct. 3, 1970. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service supervises the harvest of an average 50,000 fur seals each summer on the Pribilof Islands.

There are now seal rookeries under U.S. jurisdiction on Alaska's Pribilof Islands of St. Paul and St. George in the Bering Sea, on Robben Island, and on the Kurile Islands in the Sea of Okhotsk. There is substantial intermixing between the herds of the eastern and western Pacific Ocean.

The harvest is restricted largely to 3- and 4-year-old bachelor males that congregate on the edges of rookeries. Baby seals, or pups, are not harvested. Females are taken only when it is necessary to keep the number of animals at the most productive level the Pribilof environment can support. Overcrowding brings higher mortality among the pups. The battle for living space causes injuries and leads to disease and starvation. Such mortality, in the past, has taken up to 20% of the pups before they are sufficiently mature to leave the rookeries.

One concern has been the length of the paths along which seals are driven from the shore to the harvest. To reduce discomfort, the drive paths have been shortened by approximately one-half. Experiments are planned with other ground cover to determine whether the drive can be further improved.

Seals are harvested wih clubs. They are dispatched quickly with a blow to the head.

For several years, the Fisheries Service has been experimenting with alternative methods including drugs, gases, electricity, shooting, and others to dispatch seals. At this point, despite extensive effort, none has been found which accomplishes the task as quickly and as humanely. The Service's position is that it cannot cause increased suffering, and introduce an element of danger to the men employed in the harvest, simply to provide a cosmetic death. Meanwhile, the quest for a more humane method will be vigorously pursued.

The Service has cooperated closely with representatives of humane societies who observe the seal harvst annually. It will continue this cooperation. Further, the cooperation of the American Veterinary Medical Association's Research Committee is being sought in the Service's continuing search for the most humane way in which to conduct the harvest.

Should the fur seal harvest continue? When the alternatives are considered, the answer must be affirmative.

Should the present management scheme by unilaterally halted by the United States, other nations would, in all probability, resume the harvest at sea, a wasteful and inhumane process.

If the Pribilof fur seal herd is not managed properly and excess numbers removed, many will succumb to other environment controls such as parasites, diseases, and physical injury magnified by overcrowded conditions. Their illnesses and deaths, in many cases would be lingering, with pups suffering the greatest losses. It is a rare occasion when "natural" mortality is as humane as current harvest methods.

If proper management harvests are stopped, the single source of employment for the Aleut population in its ancestral home would disappear, with nothing in view to replace it.

As the harvest continues, with its operation under constant review within and outside of the government, the Pribilof fur seal herd will be kept at a level of high, productive abundance, and the resources which has been saved by careful conservation methods will be preserved for the future.

STATUS AND MANAGEMENT OF MARINE MAMMALS

The marine mammals are a varied group of animals representing four orders of the class Mammalia; Cetacea (the whales, dolphins and porpoises); Carnivora (the sea otter); Pinnipedia (the seals, sea lions and walruses); and Sirenia (the dugongs and manatees.) Most of the species are wide-ranging animals which travel extensively through international waters. Due to their extensive movements and distribution and their restriction to a marine environment with many species breeding in the far north, research on this group has proven to be quite difficult. In recent years, however, there has been an intensification of research effort, with international cooperation in some cases, and man's knowledge of this group is now expanding.

Management needs of the marine mammals vary with the species concerned, as would be expected. In many cases, management is complicated by the animals extensive movements within international waters. With respect to these species, sound management depends on international cooperation.

The following discussion presents current information on the status of the various species, the opportunities for management present management measures and the needs for management.

WHALES AND OTHER CETACEANS

Estimates of the population size of the commercially utilized species of whales indicate that the populations are low and that they are being taken at near or over the maximum sustainable level, mainly by countries other than the United

States. Those previously utilized and which are now fully protected as endangered species are, of course, also at a low level. However, the federal government through the Departments of the Interior and Commerce has prohibited after December 1971, both the importing of products from whales and the taking of them by U.S. citizens. This is the ultimate unilateral protection possible by this nation. Additional protection must come from other countries.

Other cetaceans such as the dolphins, porpoises, killer whales, and belugas appear to be at about the optimum population size. They are litle utilized by U.S. citizens. Small numbers are being taken mainly for live display in aquariums or research purposes. A few beluga and bowhead whales are taken for local use by the Eskimos in Alaska.

The approximate world population of whales, but based in some cases on limited data, are as follows:

Blue, 8,000.
Fin, 100,000+.
Sel, 120,000+.
Humpback, 4,000.
Right, 2,000.
Bowhead, 1,000.
Gray, 11,000.
Sperm, several hundred thousand.
Killer, 10,000.

The population size of dolphins and porpoises is not known but probably ranges from 10,000 to 1,000,000 for most species.

FUR SEAL

The Pribilof Islands fur seal population is about 1.3 million which is near the number which produces the greatest yearly surplus. These seals are taken only on the Pribilof Islands under the direct supervision of the federal government. International treaty forbids the killing of fur seals on the high seas. See attached fact sheet on fur seals.

ELEPHANT SEAL AND SEA LION

The northern elephant seal is thought to number about 20,000 while the California sea lion population is about 50,000. Neither of these species is utilized except for the capture of a few sea lions for zoos and aquariums. The Stellar sea lion numbers about 500,000 of which about 5,000 a year are taken by natives in Alaska for food and the hides. Sea lions are resident species under state jurisdiction.

HAIR SEALS

Pacific hair seal population which include the ribbon, ringed, bearded, and harbor seal appear to have stable populations with the exception of the ribbon seal which has decreased in number through excessive kills by the seal fleet of the U.S.S.R. in the Chukchi Sea. Population estimates for these seals are: bearded—300,000, ringed—250,000, ribbon—150,000, harbor—200,000. It is estimated that about 25,000–30,000 hair seals are taken annually in Alaska for food and clothing and sale of pelts primarily by Eskimos, Indians, and Aleuts.

SEA OTTER

In the early days of this century the sea otter population had been reduced by exploitation to scattered remnants (a few hundred) at a number of different islands. Under a policy of complete protection which began in 1911, the population spread and is today in a phase of rapid growth. Studies by the U.S. Fish and Wildlife Service in the 1950's and early 1960's showed that at that time they had increased to at least 25 to 30 thousand animals and were rapidly spreading into new areas. Aerial surveys have been continued by the State of Alaska, and today it is estimated that the population has grown to about 40 to 50 thousand animals. The rate of population growth in uncrowded areas is at least 10 percent per year. In crowded populations there is approximately a 4 percent rate of increase and at islands where the populations exceed carrying capacity of the habitat (i.e. more than 10 to 15 otters per square mile of habitat) a population decrease has been observed. Scientists believe that stress mortality such as starvation, as well as emigration accounts for the declining populations in such cases. The annual rate of reproduction is about 14 percent. Modern population surveys are in accordance with these findings.

The information presented above indicates that where populations are crowded the sea otter resource could easily be cropped to the benefit of the habitat and the health of the population. Present management in Alaska is attempting to determine whether this is actually the case. This management program consists, basically of three approaches:

1. Experimental harvests are being conducted at Amchitka Island. This population has exceeded the carrying capacity of the habitat and has suffered large juvenile and aged adult die-offs. Approximately 300 otters have been harvested annually since 1965 in an attempt to determine the level of harvest that will benefit the population. All harvesting is done by game biologists and only single, adult otters are taken. No females with young are harvested. Some harvesting from other crowded populations is also being performed by biologists. To date there has been no observable decline in those populations subjected to annual harvest.
2. Transplants of live otters have been made in southeastern Alaska, Washington, Oregon, and British Columbia in areas having suitable habitat but presently lacking otter populations. There is evidence that some of the transplants in southeastern Alaska are being successful; pups have been seen in these areas where otters previously were not seen. Also, otters are still observed on the Washington coast a considerable period of time after release. More time is needed to fully evaluate the success of these attempts, however. Further transplants are planned as these attempts have the double benefit of reducing population pressure in the crowded areas from which the animals are taken and offering the potential for reestablishment of the sea otter in areas from which it had been extirpated. Natural spread of the otter over its former range would take a very long time as the species does not emigrate to new areas until placed under considerable population pressure and natural morality is occurring. Even then, natural dispersion is slow and limited.
3. Complete protection is given to sea otters where their populations are below the carrying capacity of the habitat and population growth can be expected.

Management of the sea otter, at present, is under state jurisdiction, except where the otters occur on land within a federal refuge or where they occur on high seas outside the 3-mile limit. The sea otter now occurs on the California coast off Monterey, possibly in the transplant areas off Washington, Oregon and British Columbia, and primarily along the southern coast of Alaska, the Aleutian Islands, Medny Island, Kamchatka, and certain Kuril Islands, the latter three locations being under the jurisdiction of the Soviet Union.

WALRUS

By the end of the 19th century, the walrus population was greatly reduced. This reduction was due to the fact the whalers, after reducing northern whale populations (the bowhead in particular), turned to walrus hunting, using Eskimo laborers and guides. When the populations of walrus became greatly reduced, around the turn of the century, commercial hunting of walrus ceased. The harvest of walrus today consists of those taken by natives for food and ivory and those taken by trophy hunters. It is estimated that 2 to 3 thousand walrus have been taken annually by the natives; actually fewer are being taken every year. In 1970 the United States native harvest amounted to 1,304 and an additional 23 walrus were taken as trophies; of these 850 were adult males, 374 were adult females and 103 were calves. The walrus also is under state jurisdiction. Alaska now limits the harvest by natives dependent on walrus for food to 5 adult females or subadults of either sex per season. There is no limit on adult males, and orphaned calves may be taken without contributing to the bag.

The decline in numbers of walrus harvested by natives is primarily the result of two factors. The natives are moving into larger towns, such as Nome and few return to hunt walrus. This trend will probably continue. In addition, non-natives are now permitted to take one adult male (trophy) by purchasing a $100 permit. Trophy hunters must be taken out by teams of native guides and the natives may not harvest walrus while accompanying trophy hunters. These teams, if harvesting walrus on their own rather than accompanying trophy hunters, might kill more than 100 adult male walrus per day. The trophy hunter will pay at least $2,000 for the services of these natives. Thus, trophy hunting has multiple benefits; it reduces the annual harvest of walrus and at the same time permits economic utilization of the walrus resource by the native population.

Management of the walrus in Alaska has consisted of the following measures:

1. The only major hauling ground regularly used by Walrus in Alaska, Round Island of the Walrus Islands in northern Bristol Bay, has been designated as a refuge and complete protection is provided there.

2. The annual harvest of walrus is controlled and the regulations governing the harvest favor the taking of adult males. Since the walrus is polygamous, taking of adult males, within limits, is not detrimental to the population.

While it is impossible to make any firm estimate of walrus numbers because they are widely scattered, aerial surveys indicate that there are at least 60 to 100 thousand in the ering Sea population. Walrus are not yet overpopulated, but present evidence indicates that the populations are growing and that the walrus are repopulating areas from which they were extirpated.

The Pacific walrus population occurs in international waters and in territorial waters of the United States and the U.S.S.R. Proper management and regulation of the harvest of this species, therefore, is dependent on international cooperation. At present there is no international agreement governing harvest of walrus.

HAWAIIAN MONK SEAL

Monk seals are the only tropical-water seals in the world. In the 1,000 mile-long chain of Pacific Islands on which it breeds (Kure Island to French-Frigate Shoals) the species was reduced by commercial exploitation in the mid-19th century to a very low level. The present population is not more than 1,500 animals. Since 1909, when the Hawaiian Islands National Wildlife Refuge was created, the monk seal has been afforded protection by the Federal Government. The monk seal today breeds on only four islands; all within the confines of the refuge.

There are indications that the monk seal populations on the refuge are declining. Attrition by shark bite is quite high and this species will not tolerate human disturbance. Therefore, management consists of complete protection for this species, even to the exclusion of disturbances from visitors. The population is visited only about twice a year to determine current status. This species is presently classified as rare by the U.S. Department of the Interior.

POLAR BEAR

The distribution of the polar bear is circumpolar and coincides with the Arctic ice pack. This ice pack is in constant motion, circulating with the ocean currents and it is presumed that this motion affects movements of the bears. Due to the adverse climatic conditions present within the range of this species, research has been lacking. There has, however, been an intensification of investigations on this species in recent years.

A cooperative study of polar bears currently is being conducted by Canada, Denmark, Norway, the U.S.S.R. and the United States. This study was initiated following an international meeting held in Fairbanks, Alaska in 1965. Since then two working group meetings were held in Morges, Switzerland. Areas of needed research were outlined, agreements were reached on standardizing research methods and procedures and certain research problems assigned to individual specialists in attendance.

A review of harvest data reported by the involved countries indicates the arctic-wide harvest of bears is now at least 1,250 annually. In 1969, the harvest by country included 128 for Greenland, 346 for Norway, 406 for Canada, 298 for the United States and a few for the U.S.S.R. The harvest in Alaska is controlled by that state which restricts the number of permits issued to 300. It is illegal to harvest females with cubs.

Hunting parties originating in Alaska are required to submit all skins and skulls of polar bears to the Game Commission so that age data may be obtained. Data from bears harvested in Alaska show that the averge age of males has been declining since 1966. This means that younger and smaller bears are being taken, but not necessarily that the population has been harmed. The survival of young bears is thought to be enhanced by the removal of older males since they are known to be cannibalistic. Consideration should be given to reducing the kill, however. In order to maintain a better balanced age ratio.

Management of the polar bear is complicated by the fact that five nations have direct interest in this species. Individual bears range extensively over the arctic and it is not known whether any nation has truly a resident population of polar bears. Any management program, to be successful, must be based on international cooperation between the nations concerned.

MANATEE

The manatee is given complete protection as an endangered species by both state and federal governments.

JUNE 9, 1971.

Hon. RICHARD M. NIXON,
The White House,
Washington, D.C.

DEAR MR. PRESIDENT: Programs for the protection and scientific management of marine mammals are being threatened by well-publicized but misguided efforts which, if successful, would destroy the conduct of biologically sound activities of state and federal conservation agencies.

Conservation of this varied group of animals has been a long and arduous battle in the face of indifference and exploitation. Their management has been made more difficult by the international movements of several of the species involved and insufficient knowledge concerning their habitat requirements. Progress has been and is being made, however.

Some animals, such as the fur seals and sea otter, have been restored to productive numbers. Research is underway into the life histories, habitats, and movements of others.

Much more can be done. This will require the understanding and support of the Administration, support which no Administration heretofore has seen fit to confer in any degree commensurate with the need. Your Administration could gain much support and commendation by requesting adequate authorities and funds to bring federal programs for marine mammals up to necessary levels and by seeking new and more effective international understanding.

Should these many years of progress be undermined by a complete "hands off" policy forced upon responsible fish and wildlife agencies, such as proposed by S. 1315 and similar House bills, marine mammals under scientific management would suffer a serious set back.

In essence, the issue is whether natural resources will be protected, managed and used on a scientific basis or whether they are to be regarded as something apart from and unaffected by man.

As has been amply demonstrated by the successful management and restoration of other wildlife resources, the latter course is unacceptable. Decisions regarding the well-being of any wildlife resource must be based on fact, not on emotion.

The following national conservation organization respectfully request that you support programs to improve domestic and international management of marine mammals. Further, we urge the Administration to oppose S. 1315 and similar House bills as being a negative response to a resource management responsibility that should be accepted by the Federal and State Governments.

Sincerely,

William E. Towell, Spencer M. Smith, Chester F. Phelps, Joseph W. Penfold, Charles H. Callison, Maxwell E. Rich, C. R. Gutermuth, Richard H. Stroud, Fred G. Evenden, Ray A. Kotria, Daniel A. Poole, and Ira N. Gabrielson.

Mr. DINGELL. Mr. Poole, the committee is grateful to you for your very helpful statement and we certainly thank you for your patience.

Any questions?

Mr. Poole, again we thank you. As always, it is a pleasure to have you here. We have detained you long, but the Chair wants you to understand when we have this number of witnesses it is not always easy to schedule according to the wishes of the Chair or the individual wishes of the witnesses.

Our next witness is listed as Mr. Joseph Penfold of the Izaak Walton League.

I see we have Mr. Ted Pankowski, director of environmental affairs, in his stead.

Mr. Ted Pankowski is another old and respected friend of the Chair.

STATEMENT OF TED PANKOWSKI, DIRECTOR OF ENVIRONMENTAL AFFAIRS, IZAAK WALTON LEAGUE OF AMERICA

Mr. PANKOWSKI. Thank you very much, Mr. Chairman.

I am Ted Pankowski, director of environmental affairs for the Izaak Walton League of America. As the committee may know, we joined many of our colleague organizations in opposing what we believe is an ill-advised demand for a total and absolute ban on the taking of marine mammals under any circumstances. The result has been that the league is included on a list circulated by one organization involved in this problem and entitled "Assassins Unlimited."

This is indeed regrettable. I have been associated with the league and conservation for only a few years. But in that short time, I have seen firsthand the kind of personal sacrifices citizens, like our membership, are making voluntarily to protect and restore our environment. It is most difficult to conceal anger and disappointment over this kind of injustice done them. In fact, it makes us especially grateful to the committee for a chance to comment on this important legislation.

The fact of the matter is that there are few, if any, of us who do not welcome the concerns of the sponsors of the original legislation. Senator Harris and Congressman Pryor have placed in sharp perspective the continuing needs of marine mammals and mankind's responsibility to itself to protect them. An increasing number of the American public in this issue is finally taking the time to articulate its environmental ethic. And we are witnessing an expression of appreciation for other living creatures that must surely have application in our relationships with each other. Isn't this what conservationists have worked for, for nearly a century? We can object to it.

Moreover, we have a timely warning in a technological age that "environmental management" is not an end in itself; that no use of our outdoor heritage, however legitimate, can survive without abundance for all; and that we cannot become complacent or smug about ourselves when so much of the natural world is dying all around us. The precarious existence of many species, including certain marine mammals, illustrates this full well.

From its nearly 50 years of involvement, the League has learned from sometimes painful experience that a total ban on the taking of animals is no guarantee that a species will survive or do well. Because of other, more critical factors, it may only hasten that unhappy day. The committee knows them well—the destruction of habitats, the the poisoning of environments, manipulation of resources that upset natural balances, overkilling—all manmade problems society is only beginning to deal with effectively. It seems apparent that an effective marine mammals bill must take all of these into account. Where is the outrage over the tons of mercury these creatures pick up and transmit to the Aleuts who eat them? One TV documentary suggested that this entire controversy over controlled killing of Pribilof seals may be entirely irrelevant because of this fact.

Whatever it is, the League does not oppose a total ban on the taking of animals when it is essential or part of a restoration program. In Minnesota, for example, we are supporting the State in closing the 1971 deer hunting season until the reasons for that species' decline can be understood. If it is hunting, so be it. Just as we have insisted on application of the Endangered Species Act to all manner of creatures, whether game animals or not. In the case of most marine mammals, particularly polar bears and whales, we probably should protect the hell out of them.

The Harris-Pryor bill, however, is something else. It deals with one determinant across an entire range of species, the needs of which vary. The century-old story of the Pribilof fur seals illustrates this well, and we are pleased that an amendment has been offered in recognition of the practical difficulties there. Under a total and absolute ban for all mammals, we wonder how more exceptions will have to be made by specific legislation as marine biologists confront new problems—the control of diseases, the unwanted and unforeseen loss of habitats, breakdowns in international negotiations and so forth. We are not willing to jeopardize the gains that have been made—as slow as they are and as distastefully secured as it may seem to some people—to sentiment. What surgeon, for example, would refuse to take a part to save the whole?

The League believes that H.R. 10420, on the whole, deals with these possibilities far more realistically. Specifically, we endorse its findings:

1. That certain species of marine mammals are, or may be, endangered.
2. That there is inadequate knowledge about them, precluding rationale use decisions needed for their protection.
3. That negotiations should begin, as soon as possible, on international arrangements for research and conservation measures.

Moreover, the ongoing review which can be provided by the proposed Marine Mammal Commission and the Committee on Scientific Advisers on Marine Mammals will be most important in determining what should be done on a species by species basis. We endorse the idea suggested by the Audubon Society that membership on the commission should be barred to anyone representing any interest which stands to gain or profit from the taking of marine mammals.

I should add we question whether the scope of the Commission as articulated in the bill, is broad enough to take in the legitimate interest of several Federal agencies and several States or also whether it is broad enough to consider the kind of management needs which Dr. Ray talked about this morning when he alluded to the need to manage the entire Bering Sea as an ecological whole.

We would hope that the recommendation for a Marine Mammals Commission would take those factors into account.

Basically, this is a necessary management approach in contrast to the prohibitions recommended in the Harris-Pryor bill. We would like to suggest that neither can stand alone and that there should be an amalgam of the two concepts. Section 102 of H.R. 10420—the Anderson bill—for example, would require a permit from the Secretary of the Interior for the taking of marine mammals under regulations promulgated by him. He would be guided by two basic criteria:

1. Assurance that the species is not threatened with extinction; and
2. That the species can be managed on a sustained yield basis.

We think that the Secretary is a fine fellow but we question whether this gives him near enough direction.

Mr. Dingell. At that point if you will give us any suggestions for amending the bill we would appreciate it.

Mr. PANKOWSKI. I shall certainly do so.

It would still permit commercial harvesting—the wisdom of which at this time seems extremely doubtful—except in circumstances, like the Pribilof seals. It still leaves some of the States in effective control of important game species like the polar bear—a resource of international significance—and is subject to the interpretation that the Secretary may set what seem to be bag limits on these creatures. Moreover, we would like to suggest that it may be possible to manage a species on a sustained-yield basis without endangering its survival as a species by concentrating a representative sample within a very small area—an outdoor zoo-type situation undesirable.

We would like to suggest the following:

1. That in lieu of the language of section 2 (1) and (5) of H.R. 10420 and its emphasis on "use," the leglislation specifically state that its purpose is to protect and enhance the status of marine mammals as resources vital to the ecological integrity of the seas and man's environment.

2. That permits be issued by the Secretary only in those situations where the taking of marine mammals is necessary to enhance the well-being of those species or, in extenuating circumstances, where hardships to men are involved. This would give the benefit of the doubt where it seems to belong at this time without doing violence to man who is, in our view, the real beneficiary of this legislation.

3. That there be a requirement that the Secretary shall first consider alternative management techniques to killing in order to protect against overcrowding—transplanting and the provision of additional habitats, for example. The Chair knows well the differences between the elk of Yellowstone and the situation at Tule Range.

4. Direction to the Secretary and to the Marine Mammals Commission that efforts should be made to encourage an abundance of mammals throughout their possible range and habitat toward the view that they may in the future be used to provide legitimate esthetic, recreation and economic benefits to man.

We believe these recommendations are consistent with the findings contained in the Anderson bill and with public concern over the future of these creatures. We should not be comfortable or satisfied in a world containing only remnants of a once vast mammal heritage. Nor should be cloak our fears for the survival of man and our reverence for life in measures based on a contorted idea of animal mysticism.

We opt with Aldo Leopold:

> These wild things, I admit, had little human value until mechanization assured us a good breakfast and until science disclosed the drama of where they come from and how they live. The whole conflict thus boils down to a question of degree. (Sand County Almanac)

Thank you.

Mr. DINGELL. Mr. Pankowski, we are particularly grateful for your suggestions with regard to amendments and we will certainly consider them most carefully in the consideration of the bill.

Our last witness is Mr. Tom Garrett.

Mr. Garrett, you have been extremely patient in waiting. Patience, you have demonstrated. You would have been a witness at the time earlier but we had to save you for last.

STATEMENT OF TOM GARRETT, WILDLIFE CONSULTANT, FRIENDS OF THE EARTH

Mr. GARRETT. Mr. Chairman, I am Tom Garrett, wildlife consultant for Friends of the Earth. I appreciate this opportunity to testify.

Friends of the Earth strongly endorses the basic provisions of the Ocean Mammal Protection Act. We wish to commend Representative Pryor for amending section III of the original act to contain an evident guarantee that pelagic sealing will not be resumed.

It is painfully obvious to any of us who have observed the tragic destruction of the great whales, that the Japanese and Russians would be very liable to decimate the Pribilof herds if not bound firmly by treaty.

We believe that a number of additional amendments are required.

Any ocean mammal bill should contain provisions for the funding of a really comprehensive study of marine ecosystems, and the role of marine mammals in these systems. Very little is really known of the complex marine food webs, or any other aspect of marine ecology. This should be acknowledged, and efforts made to improve the deficiency.

There is no merit in attemtping to apply the so-called lessons of terrestrial wildlife management to the incomparably more complex marine environment. Simplistic analogies based on such comparisons cannot be taken seriously.

The dramatic deterioration of the marine environment makes this kind of study critically important. There is, for example, increasing evidence that marine mammals are being poisoned by toxic compounds and heavy metals which are now permeating the marine environment.

One case which first came to my attention last month concerns the California sea lion. During the past several years, an increasing number of aborted fetuses have been observed on the channel island rookeries. At least 250 aborted fetuses have been observed on San Miguel Island this year.

Dan O'Dell has been conducting counts on San Nicolas Island for several years. He reports that the number of aborted fetuses has increased from 139 in 1969, when the abortion problem first began to attract attention, to an estimated 600 in 1970, and around 400 in 1971.

There is no way of telling how many animals may have aborted at sea, but the count of living pups on the rookery; 2,200 in 1970, and about 3,500 this year from an estimated 8,000 females, indicates that a good many may have aborted.

Three scientists working for the naval undersea research and development program, Delong, Gilmarten, and Simpson, have discovered a correlation between abortion and poisoning by toxic compounds. Their report is now in draft form, and is as yet unavailable. However, they have confirmed that the aborted fetuses and mothers have shown a concentration of DDE, a metabolite of DDT, 8½ times greater than was present in a control sampling. They also report strikingly high concentrations of PCB, a toxic phenol compound in the cases involving abortion, suggesting a possible synergistic effect.

The analyses conducted have provided no evidence of involvement by leptospirosis, or other viral or infections diseases.

Several scientists have reported, unofficially, that Stellar sealions may also be aborting. Suggestions of similar problems affecting the Pribilof herds now abound in scientific circles. It is inferred that large numbers of fur seals may be aborting at sea.

I fear that the present pattern of reproductive interference in marine mammals may yet parallel the situation which showed up a number of years ago in birds. What began as a puzzling minor problem now threatens the very existence of a number of Avian species, such as Brown pelicans, Peregrine falcons, and so forth.

All marine mammals are threatened in some degree or another by pollution stemming from industrial effluents, municipal and agricultural discharges, the dumping of garbage and toxic wastes at sea, oil spills, military testing, and so on. At least two species to be considered in this legislation, the California sea otter and the Florida manatee are severely menaced by speedboats.

We must realize that if the marine environment is permitted to deteriorate to a critical point, whether or not marine mammals are deliberately killed may become academic. The survival of marine mammals—and perhaps eventually our own survival—is very much tied in with preserving and restoring the overall marine environment.

Thor Heyerdahl, in a letter to Friends of the Earth, has recently said that he considers man's behavior to the marine environment as "a threat to human survival greater than the atom bomb."

We should like to suggest that ecological studies funded under this legislation can be used to provide the Congress with the additional information it will require to enlarge the concept of marine mammal protection beyond the halting of deliberate molestation by U.S. citizens. This should include recommendations for establishment of marine sanctuaries, free of motorboats, and commercial activity.

We consider it most important that the behavior of marine mammals be intelligently studied. The ethological methds which have proven so fruitful in the study of terrestrial mammals in the past few years should certainly be applicable to the study of marine mammals if the appropriate funding and incentives are provided.

I have recently received a letter from Dr. T. J. Walker, the pioneer cetologist and oceanographer, who previously appeared before this committee. Dr. Walker calls for a study of whales and other ocean mammals based on continuous observation of living animals. He cites the need for developing sophisticated underwater research vehicles to permit the observation of mammals below the surface where most of their essential activities are conducted.

We strongly endorse Dr. Walker's demand that all federally funded research projects deliberately adjunctive to commercial exploitation of marine mammals, such as the killing and butchering of 316 nominally protected Grey whales by the Del Monte Co. of Richmond, Calif., under "special scientific permit," or the killing at sea of 824 fur seals by the Department of the Interior in 1968, be halted.

We consider it imperative that research funded under this legislation be pure research, not applied research subordinate to commercial exploitation. Imaginative work, aimed at understanding living animals, is needed.

The kind of research we have seen all too often in the past; trivial, unimaginative and repetitive to the point of absurdity; based solely on killing and dissection and often dependent on commercial operations for funding, and for supply of victims; predicated on the assumption that commercial exploitation should be continued or resumed; is not needed.

The possibility of establishing a cooperative relationship with marine mammals in mutually beneficial projects should be thoroughly investigated. Friendly, partially symbiotic relationships have frequently existed in the past between dolphins and primitive people, often forming the basis of fishing cultures.

Cooperative dolphins, porpoises, and sea lions are presently being utilized in projects undertaken by the U.S. Navy at San Diego. The subcommittee has been privileged to hear Mr. Robert Horstman, of the Sea Mammal Motivational Institute, describe cooperative associations with a number of species of marine mammals interacting freely with institute personnel near their research ship off Florida.

The killing of 200,000 or more stenella dolphins annually by the tuna industry requires immediate special attention. We believe that funds should be established for an accelerated program for developing alternatives to present purse seining practices, and to achieve methods by which the cetaceans can be separated from the tuna schools to prevent their being netted. Inspectors should be posted aboard the tuna fleets to assess the porpoise mortality, and to rigorously enforce guidelines adopted to prevent it.

The assertion by the tuna industry, that nets developed with smaller mesh have solved the problem of porpoise mortality, is not corroborated by scientists such as William Perrin, or by workmen aboard the boats with whom we have been in contact. In any case, the industry should be obliged to prove that the problem is solved, and should entertain no objection to the posting of inspectors aboard its vessels.

I am anything but reassured by the assertion that the greater efficiency conferred by the new nets in terms of time required to clear the set of porpoises will bring about their rapid adoption by the entire industry. It is clear that many captains are going to meet the competition of the new nets, if permitted to do so, by simply cutting short their efforts to free porpoises.

The present legislation should provide an excellent vehicle for the establishment of guidelines for oceanaria in which marine mammals are confined and exhibited. Conditions in many such institutions are truly execrable, and mortality and suffering of the confined animals is quite appalling.

We are not presuming to suggest detailed guidelines, but we feel that the following points may be helpful:

1. That the animals be provided with conditions which permit full exercise of motor patterns characteristic of the species.
2. That social animals not be deprived of social contact.
3. That institutions be obliged to keep close records of illnesses and mortality, and that in cases where mortality significantly exceeds the mortality which might be expected under natural conditions, the institutions be denied further permits for the taking and incarceration of affected species. It is clear that many marine mammals, including walrus, cannot be kept in captivity without excessive mortality, and that no attempt to do so should be made.

Mr. Ric O'Feldman, of the World Dolphin Foundation, in a recent letter has provided the following description of the present situation with regard to dolphins:

> We can show you salt water dolphins here in Florida that are landlocked in a fresh water hole in the ground, being exploited by a roadside tourist trap, or dolphins traveling around in trucks with a sign "Flipper" on the side to draw the crowds to pay a few bucks to see them. The dolphins, of course, are not Flipper, as I trained the five dolphins for the Flipper TV show myself. They incidently, are all dead now, due to the fact that they just don't live very well in a artificial environment, such as the Seaquariums around the world.
>
> The Seaquarium has to keep catching dolphins to supply most of the world's oceanariums, as they frequently die in captivity or in transit. We saw dolphins in Brazil that were blind due to the traveling experience, via Miami. Although the Seaquarium does not mind as it is a very lucrative business.

The taking of mammals for oceanaria should also obviously be subject to extremely close scrutiny and control. Mr. O'Feldman has advised that most of the dolphins taken for the oceanaria in the country are taken in Biscayne Bay by the Miami Seaquarium. The Biscayne Bay population of dolphins has decimated by this practice. The surviving pods are distorted in composition, comprising largely males, since the more tractable females, are in demand at Oceanaria.

We feel that the killing of marine mammals by Eskimos and other Native peoples, supposedly in line with the autochthonous cultural patterns, should be closely supervised by Federal inspectors.

We have received very disturbing reports—testimony of Charles Callison and Alice Herrington—of massacres of walrus, in which animals of all ages and sex are taken, and in which a large percentage of the animals killed are lost at sea or otherwise wasted.

I understand that three or four Bowhead whales are wounded and die during the annual hunt off Point Barrow for every one which is retrieved. We can see no reason why the faltering comeback of this rare species should be jeopardized by such attacks. The killing of Bowheads should be absolutely terminated.

We consider it imperative that any legislation include provisions barring the importation of marine mammal products derived from killing by foreign nationals outside U.S. territorial waters.

The present Endangered Species Act is a fragile stopgap, weakly anchored against political vicissitudes, and cannot be considered as relieving comprehensive legislation of the necessity of imposing meaningful import restrictions.

Burgeoning U.S. markets for animal products have helped bring about the depletion, and even extinction, of many species over the past two centuries. These markets continue to subsidize the decimation of numerous species, including marine mammals, throughout the world.

It would be astonishingly hypocritical to restrict U.S. citizens from engaging in atrocities against marine mammals, while permitting commercial interests in this country to underwrite such activities by foreign nationals.

We know of no marine mammal stock outside U.S. waters being commercially exploited which is not being depleted, grossly abused even by conventional management standards.

Unrestricted killing of the South African fur seals has reportedly been permitted this year. The harp seal herds which congregate in the Gulf of St. Lawrence and off Newfoundland are rapidly declining.

The kill during the past year exceeded by 100,000 the sustainable yield estimate of David Sargeant, while hooded seals have been all but extirpated from these waters.

Since we consider it particularly important that hair seals products be banned from import in any form, we were pleased to learn, through the testimony of spokesmen for the fur industry, that hair seal products were considered of little importance, and that no objection would be entertained to their being banned.

Corroborating this, I have received a cable from John Walsh of ISPA reporting only 7,250 units of hair seal skins were exported to this country from Canada in 1970. The remainder, which comes in, enters in the form of finished products from England in direct competition with various U.S. finished goods.

We see no reason at all for any whale products to be imported into this country. In view of the appalling tragic decimation of all commercially exploitable whales, we consider a total ban on all cetacean products to be absolutely imperative.

It should be noted that despite the fact that eight great whales have been put on the endangered list, products from these species continue to enter the country under 37 endangered species permits, most of which are scheduled to expire December 1 of this year.

By our calculation, over 30,000 tons of sperm oil have entered, or will enter, this country this year. Kal Kan has additionally imported 11.5 million pounds of sperm and baleen whale meat under ES Permit 24.

Mr. Chairman, a great deal of the controversy surrounding this legislation centers about the term "management," which has become a shibboleth for some, and a rallying point for others. We are advised that the committee will report out a "management" bill.

If management means, as it has in the past, "management for the benefit of commercial vested interests," it will be difficult, if not impossible for us to support legislation developed around such a concept.

But, if management in this case is management aimed entirely at benefiting the marine mammal populations being considered, altogether divorced from any commercial consideration, we have no objection to the term, and endorse the concept.

Most successful cases of management of marine mammals under this definition have consisted of leaving the animals alone. The case of the northern Elephant seal, which has increased from a remnant in the late 19th century, after being nearly exterminated by whalers, to as high as 30,000 today, illustrates this well.

The imbalanced and rapidly deteriorating state of marine ecosystems may necessitate intervention. If this is to be done, however, let it be done after it has been firmly and openly established that such management is (*a*) necessary to the survival and well-being of the overall population and (*b*) is not related to any commercial process, and will not benefit vested commercial interests.

We feel that any legislative approach should begin on the basis of a complete ban on killing, capturing or molesting the animals. If any killing, capturing or molesting is to occur, the onus of proof should rest entirely on those wishing to perform such acts. Let these persons demonstrate conclusively that it is in the overall best interests of the animals being so managed that such acts be committed.

We hope that the ethic embodied in the Pryor bill will not be absent from the legislation reported out by this committee. Marine mammals are obviously among the most highly evolved and intelligent of living beings. This should not be ignored.

If the term intelligence is used in an interspecies context as a synonym for humanness, it is clear that no living creature can possibly be, by definition as "intelligent" as we are.

But, are we justified in supposing because a whale or a walrus represents a different evolutionary history, does not have hands, and cannot manipulate, manage or, of course destroy its environment, that its awareness is necessarily less significant than our own?

The size and complexity of the brains of certain cetaceans, in particular, indicate that exactly the opposite may be the same.

The paleontological record demonstrates that the braincases of mammals returning to an aquatic and marine environment tend, over a period of millions of years, to dramatically enlarge; to become foreshortened and to widen transversely to accommodate enlarged auditory association areas.

The brain of the common harbor seal is about 250 grams; notably larger and more convoluted than that of a terrestrial carnivore of comparable size, and roughly comparable motor requirements.

The California Sea Lion has a brain of about 380 grams, which approaches the size and apparent complexity of a chimpanzee.

The walrus has a brain of about 1,000 grams, close to a human brain in size.

Cetacean brains range from about 1 pound in the common porpoise to 19 pounds in the sperm whale. The brain of the bottle-nosed dolphin has been investigated with particular care by both United States and Russian scientists. The dolphin's brain weighs close to 4 pounds, being both larger and more convoluted than our own.

Four large parietal gyrii are evidently concerned with auditory association in these dolphins. Totaling at least 10 times the mass of auditory association areas in the human brain. The killer whales' brain weighs 12 pounds, while most of the baleen whales' brains range around 15 pounds.

Finally, while the effect of unilateral action such as this legislation will have profound effects and can set a felicitous example for other nations throughout the world, it should be stressed that international agreements to save the marine environment must be consummated.

We should like to suggest that the marine sanctuary concept should be applied on an international scale. The State Department should be instructed to call for the establishment of international sanctuaries free of killing and technological disturbance in Antarctica, the Bering Sea, and other regions.

The bankrupt legal doctrine of *res nullius* (belonging to no one) must be abolished. It must be replaced with a doctrine of *res communis* which takes into account the interconnectedness of all life, and which considers the destruction of any life form, the degradation of any ecological system, as an intolerable threat to all.

It may well be that the survival both of marine mammals, and of ourselves, will eventually hinge upon this being acomplished.

Mr. Dingell. The committee is grateful to you for your statement.

Mr. Keith. Did I hear or understand you to say that the mammals were intelligent as human beings?

Mr. Garrett. No, I didn't say that. Certainly not. Where was this?

Mr. Keith. I would say it was near the end.

Mr. Garrett. That was about the time I was hurrying along to get over the testimony.

Let me see. I say here:

> If the term intelligence is used in an interspecies context as a synonym for humanness, it is clear that no living creature can possibly be by definition, as "intelligent" as we are.

I may have coined a word there.

> But are we justified in supposing because a whale or a walrus represents a different evolutionary history, does not have hands, and cannot manipulate, manage or, of course, destroy its environment, that its awareness is necessarily less significant than our own?

Mr. Keith. I have often wondered about the communications between mammal and the species. Maybe it is entirely possible. From my observation of various kinds of waterlife, I would say they have sophisticated means of communication.

Mr. Garrett. Dr. Tayler down at Port Elizabeth South Africa has been watching dolphins teach the infants dolphin language. He maintains that he now knows about a thousand dolphin "words." Dr. Lilliy conducted a study of dolphin communication through the 1960's. I don't know really what became of that. Several years ago Dr. Lilly was calling for funding, for breaking the interspecies communication barrier. Other than his work and the work done by Colin Taylor, I don't know of anything significant.

Mr. Potter. If you have scientific papers or supporting material that you would like us to look at, we would be delighted to have it.

(After the close of hearings, the following material was supplied to the committee by Friends of the Earth for inclusion in the record:)

Whales of the World and Friends of the Earth, a Report

On Monday, July 26, a subcommittee of the House Foreign Affairs Committee met to hear testimony for and against a proposed 10 year moratorium on all whaling. The legislation, H.J. Res. 706, would instruct the Secretary of State to call for a 10 year international moratorium on the killing of all species of whales. My testimony as spokesman for the Friends of the Earth supporting the moratorium is appended below. The arguments used against the moratorium are both interesting and absurd. They are presented here with the hope that Friends of the Earth will be able to counter them effectively in the struggle to save our cetacean brothers of the high seas.

The spokesman for the State Department admitted that . . . "The (International Whaling) Commission has been, to say the least, an imperfect mechanism for the conservation of the whale stocks." Why did he not admit that there have been no changes what-so-ever in the organization and operating methods of the Commission? That would be an admission that the Whaling Commission can be no more effective in the future than it was in the past.

The State Department spokesman expressed the opinion that the U.S. should work to strengthen the International Whaling Commission. To advocate a 10 year moratorium would be considered as a rejection of the Commission, and should not be undertaken now that there is hope for future success. He stated that the Whaling Commission took on new life in the 1960's with a leading role played by the U.S. He stated . . . "There is no question, however, but that substantial progress has been made over these years. During that period . . . prohibitions have been added against the killing of blue whales and humpbach whales." What perverse and malicious nonesense! Under the so called protection of the International Whaling Commission the blue whale and the humpback whale were slaughtered not only to the point of commercial extinction but to the verge of biological extinction. When no morewhere to be found the Whaling Commission banned future killing. To take pride in such a ban is like pride in a touching prayer uttered at the funeral of one's own homicide victim.

The American Commissioner, a State Department appointee, to the International Whaling Commission also spoke at the subcommittee hearing. He was recently elected chairman of the Whaling Commission and little imagination is required to divine his position on a 10 year moratorium on all whaling. He vigorously opposed it.

His opposition to a moratorium, particularly in his oral testimony, centered on three main points. The Japanese and Soviet Whalers agreed that next year they will: First, implement an international observer plan; Two, abolish the blue whale unit and adopt species quotas; Three; reduce the catch below the sustainable yield in order that the stocks of harvested species may increase in number. Those are promises of highly desireable objectives and if they are kept they could obviate the need for a moratorium. But the "if" is there and we must consider the possibility that the promises are hollow. What does the past imply for the future of those promises?

The Russians have for the past fifteen years agreed in principle to the need for international observers on whaling ships. But they have always found excuses at the last minute for not implementing accepted plans. There is much evidence that they have often engaged in illegal whaling and none at all that they intend to change their ways next year. Moreover, the plan that they have promised to implement proposes the exchange of Japanese and Soviet inspectors. Japanese inspectors are as noted for their lack of efficiency as their government is noted for its lack of concern for marine high seas resources. If those two nations ever do exchange inspectors the result will be a meaningless farce and the whales will suffer as much as in the past.

Since the first attempt to regulate whaling all whalers have been opposed to species quotas, and the Japanese and Soviets are no exception. The former have been particularly opposed to species quotas but they just might accept them now that there are so few species left to hunt. Even if they do now accept species quotas the results will be of no value unless rigid inspection is enforced by inter-

now that there are so few species left to hunt. Even if they do now accept species

The International Whaling Commission has been meeting since 1949 and during all the intervening years scientists have complained that the catch was for above the sustainable yield. During those same years the whalers kept saying that next year they will object the catchdownward at or below the sustainable yield. Only once did they ever do so, in 1969, *after* the stocks of all whales had been decimated. But now once again they have promised that next year they will reduce the catch below the sustainable yield that will allow the whale populations to increase. The promised reduction, however, is so small that even if it is made it will take from 180 to 200 years for the stocks of whales to reach a level of optimism sustainable yield. It is sad indeed that an American official will accept such empty promises. For the whales of the world it is tragic.

Mr. GARRETT. I think I had better work my testimony over. I procrastinated until 4 o'clock yesterday before starting on it, and it looks like I should work it over, proof it, and bring it back later, and also bring supplementary papers in at that time.

Mr. POTTER. I am not unfamiliar at all with proscrastination.

Mr. DINGELL. The Chair will observe that the record will be open until next week. We will not have the hearings completed by that time, so you do have time, not of our own making.

Mr. POTTER. Since we are winding up the very long extensive hearings, I would say there is a number of documents that may be appropriate for the record that I would like permission to insert them at the close of these hearings.

The Chair observes this completes the list of witnesses for H.R. 6558 and H.R. 1400. The Chair observes the record will remain open as indicated, to afford interested persons to submit statements for the record, to include such additional matters as has been granted.

The Chair observes this completes the hearing.

We certainly thank you for your testimony. We will adjourn until tomorrow.

(The following material was submitted for inclusion in the record:)

STATEMENT OF DR. GEORGE L. SMALL, RICHMOND COLLEGE, CITY UNIVERSITY OF NEW YORK, STATEN ISLAND, N.Y.

During the last 25 years the slaughter of the whales of the world has been virtually unrestrained. Year after year the catch exceeded the sustainable yield of all commercially valuable species. As a consequence the great Blue whale is on the verge of biological extinction and the same may be true of the humpback whale. In addition, the stocks of fin, sei, and sperm whales have been reduced to pitifully small remnants of their former populations. Though they have been decimated they are still being killed at a rate above the sustainable yield. If this continues much longer they will face certain commercial extinction, and possibly worse.

Did the whalers responsible for this tragedy operate without restraint? They were subject, theoretically, to the regulations of the International Whaling Commission, but in reality they controlled that organization to such a degree that virtually made their own rules. The International Whaling Commission was a failure. Its annual meetings were a farce that never helped the whales of the world. Those meetings were only served to delude the general public into believing there was effective protection for the whales. Now the truth is known. The greatest mammals of the high seas have been all but wiped out.

What specifically caused the failure of the Whaling Commission?

(1) Each member nation had the right to veto any proposed conservation regulation that it deemed too restrictive. Time and again, for example, Japan vetoed even the slightest respite for species that were struggling for survival.

(2) Each nation was represented by one commissioner. For years, and still today, the Japanese commissioner is appointed not by the Japanese government but by the Japanese whaling companies whom he represents. This blatant mockery of the principles on which the Whaling Commission was founded has never been challenged.

(3) Many whaling nations who do not like even the weak regulations of the Whaling Commission refuse to join it. They make their own ineffective rules and continue the slaughter. I refer to such nations as Chile and Peru.

(4) Many nations have no desire to prevent the extermination of the whales of the world. For example, Japan agreed to stop the killing of blue whales in June, 1967. In October that same year it granted permission to its own whalers to form corporations in Chile where they could kill blue whales under the flag of a nation that had not agreed to stop the killing.

(5) The International Whaling Commission is powerless to enforce its own rules. Each member nation is supposed to police its own whalers but this has rarely ever been done effectively. Today the Soviet Union and Japan are the major whaling nations and there is much evidence that neither of them pays much attention to the regulations. Both have been observed killing whales of species facing biological extinction.

(6) The International Whaling Commission is continuously short of funds. Its budget is miniscule and is wholly inadequate to its research needs.

In summary, the whales of the world have been slaughtered without restraint. If they don't get some protection soon they will go the way of the buffalo and the passenger pigeon. There is only one species of large whale whose population seems to be increasing and which is no longer in danger of extinction. That is the California gray whale. It was saved by the United States Congress that gave it complete protection in 1936. It is my hope and prayer that the Congress will again come to the aid of other cetacean species of the high seas.

STATEMENT OF SIERRA CLUB ON PROTECTION OF MARINE MAMMALS PREPARED BY ROBERT HUGHES, CHAIRMAN, WILDLIFE AND ENDANGERED SPECIES COMMITTEE

The Sierra Club policy on protection of marine mammals is as follows: The Sierra Club favors prohibition of all hunting for and harassment of marine mammals (such as seals, whales, mantees and dugongs (sea cows), sea otters, sea lions, polar bears, porpoises, dolphins, and walruses) with the exception of: (1) occasional specimens captured for scientific research and zoos, (2) hunting by native Americans for the sole use of their families, and (3) carefully managed seal harvests, so long as the exception of these activities does not endanger marine mammal populations.

The spirit and intent of this resolution is much closer to Rep. Pryor's Ocean Mammal Protection Act (as amended, HR 10569), and the committee is urged to give positive consideration to this legislation.

The Sierra Club also commends the efforts of Rep. Anderson in his Marine Mammal Protection Act (H.R. 10420), and we have long recognized the benefits of scientific management practices in certain carefully regulated circumstances. However, we believe that HR 10420 could be improved upon in several respects and is not rigorous enough to meet the problems most marine mammal populations are now faced with.

H.R. 10420 defines the term "marine mammal" to include any seal, whale, walrus, dugong, manatee, sea otter, sea lion, polar bear, porpoise, or dolphin. Only one species, the Alaska fur seal, of these marine mammals is the object of successful management.

The Alaska fur seal population has grown from about 200,000 in 1911 when an international agreement eliminated the taking on the high seas and made sound wildlife management policies possible. Today, according to Howard W. Pollock, Acting Administrator, National Oceanic and Atmospheric Administration, of the U.S. Department of Commerce, the Alaska seal herds contain a population of about 1.3 million. This year's quota is 40,000 seals to be killed. Across the continent in the Gulf of St. Lawrence, the harp seal is the hunter's object and the quota for the year is 245,000 pups. There is considerable concern over the harp seal's ability to withstand the pressure of such a large kill and some evidence of a population decline. The Philippi's fur seal was long assumed extinct until a population of 30 was discovered in 1968 on Masatrierra off Chile. Prior to 1890 over 3 million of these seals were killed in one 7 year period. It is now protected by the Chilean government. The Mediterranean monk seal's declining population is now believed to be less than 500. It is often illegally shot. The Caribbean monk seal was last seen in 1962 off Yucatan. The Hawaiian monk seal numbers about 1,500 but is increasing at about 12% per year. Most of it's habitat is now a refuge. The ribbon seal is bountied in Alaska for 3 dollars per skin. This is not a common seal and is usually taken by the natives. Bounties are not justified.

The Department of Commerce has banned commercial whaling by this country's one whaling firm after December 31. The United States quota as set by the International Whaling Commission is 166 whales. Russia and Japan each have a quota of almost 10,000 whales each. The largest mammal in the earth's history, the blue whale had a world population of 30–40,000 in the mid 1950's and within 10 years was reduced to about 1,000 animals. The cosmopolitan humpback whale is rapidly declining in all waters except the North Atlantic where it is protected. The four species of right whales exist only in relict populations. The Pacific gray whale now stands at about 8,000 and is protected although a major breeding ground, Scammon Lagoon in Baja California, has been rumored to be a site for major resort development and the Mexican government has received requests to allow whaling in the lagoon. Estimates of a one-third reduction in the Antarctic population of the sei whale have been made with 55,000 taken between 1963 and 1967. The fin whale, a target of the U.S. whaling firm has gone from a population of 110,000 in 1955 to about 33,000 in 1963. This whale is still being overfished.

The whales need the protection of new legislation and new treaties. The International Whaling Commission's determinations made at its closed meetings are farcical. Its quotas exceed the reproduction ability of the whales. There are other sources of catfood.

According to the IUCN the walrus is being taken by the native populations at a rate in excess of its replacement capacity in many areas.

The dugong which occurs only on the shores of the Indian and West Pacific Oceans is declining everywhere although in Australia it may now be able to hold its own because of protection granted by the government including restrictions on hunting by the aboriginals.

The West Indian manatee once occurred throughout the Caribbean. Presently it exists only in relict and fragmented populations. The Florida race is now well protected, but elsewhere it is frequently the hunter's target. The Amazonian manatee has been seriously reduced and is still in a state of decline. The West African manatee declines and is splitting into isolated relict populations.

The sea otter is the object of considerable controversy in California where the abalone fishermen want to be allowed to kill them. The sea otter eats abalone. Once thought to be extinct in California it was rediscovered and the population has increased.

The sea lion is not listed in the various rare and endangered lists.

The polar bear has been reduced to an estimated world population of 10,000. In Russia the bear receives absolute protection. In Canada and the United States the polar bear is hunted by the Eskimo for food and for commercial gain and by trophy hunters. Recent estimates are as high as 1250 killed in 1968. Expansion of commercial oil and related operations in the Arctic threaten the polar bear's habitat and increase the hunting pressure. The Eskimo kill increases because of the increase in the Eskimo population.

Charles Jonkel of the Canadian Wildlife Service has reported that the James Bay and southern Hudson Bay bears are abundant and increasing while the high Arctic populations may be declining. The bears do not normally move from one region to another. The bears tend to prefer specific denning areas which can be destroyed by human activities.

Porpoises and dolphins are not currently listed on rare or endangered lists although they are frequently killed. A reported 250,000 porpoises are destroyed yearly by American tuna fishermen who catch them in their nets. The other major tuna fishery countries, do not report the number killed.

In North America we have managed to exterminate two species of marine mammal, the sea mink which was last seen on the Coast of Maine about 1860 and the Steller's sea cow which was last seen at Bering Island about 1768. The IUCN reports a 1962 unconfirmed sighting of 6 near Cape Navarin.

The Sierra Club urges these further modifications of H.R. 10420:

1. The definition of the term "take" should be amended to exclude the phrase, ". . . but such term does not include the taking of marine mammals which occurs as an incident to commercial fishing operations." Inclusion of this phrase opens the door for the abalone fishermen to legalize their vendetta against sea otter. It permits the tuna fishermen to continue to use methods which result in the loss of over 250,000 porpoises per year.

2. Section 107(a) exempts Indians, Aleuts and Eskimos on the coasts of the North Pacific or Arctic Oceans from the restrictive provisions of this legislation if the taking of marine mammals is does solely in accordance with customary traditions as an adjunct of the native culture. This blanket exemption does not allow for consideration of the fact that some populations cannot withstand the increasing pressure of hunting by these native groups. The restrictions provided in this legislation should apply to all Indians, Aleuts and Eskimos when the Secretary determines that a population is being hunted to a point beyond which it can replace itself.

3. The three member Marine Mammal Commission should be required to have as a condition of membership for two of the members, the stipulation that the individual nominated must not have any interest either directly or indirectly in the commercial exploitation of marine mammals either at time of nomination or in the past. The same stipulation should apply to at least five of the nine members of the Committee of Scientific Advisors on Marine Mammals.

STATEMENT OF WILLIAM E. TOWELL, EXECUTIVE VICE PRESIDENT, THE AMERICAN FORESTRY ASSOCIATION

Mr. Chairman and members of the Subcommittee, I am William E. Towell, Executive Vice President of The American Forestry Association, one of the nation's oldest and largest conservation organizations with a concern for all of the world's natural resources. I welcome this invitation to comment briefly on legislation so important to the welfare of ocean mammals throughout the world.

This legislation under consideration here today goes much deeper than protection of ocean mammals themselves. None of us, I am sure, would favor anything except the best possible management, protection and use of these great resources. However, there are great differences of opinion as to how this can best be accomplished. One of the bills under consideration (H.R. 7556) would establish almost total preservation for all species of ocean mammals, while the other (H.R. 10420) proposes scientific management based upon conditions and needs of individual species. I can enthusiastically support the latter, but must oppose the total preservation concept.

The whole philosophy of natural resource conservation is under consideration here, Mr. Chairman. It is a question of professional judgment, which I will call management, versus a sincere but emotional crusade which often is called preservation. Complete protection or preservation is a vital segment of conservation and must be employed at times in the interests of certain vital or threatened resources. But to an alarming and growing number of our nation's conservation converts, preservation is conservation. To them it is evil to kill any animal, to cut any tree or to utilize any natural resource for man's own welfare or enjoyment. Yet, there is no alternative to careful resource use and management. Without the animal, plant and mineral wealth of our planet, there would be no life for man.

H.R. 7556 establishes total protection for all ocean mammals without regard to need. It is based upon the false assumption that all are endangered, yet we have seen the population of fur seals, for example, increased more than six times under good management. Are we going to deny people the use of a resource which is needed and in surplus supply? Certainly we should insist upon the most humane methods of harvest as we do for domestic livestock, but let's not allow our past abuses to rule out any harvest at all. We have found in the management of land mammals that populations must be kept in balance with their environment or else they can destroy both themselves and their environment. Nature's harvest is far more cruel than man's. There is no need for total protection of all ocean mammals and it would be poor conservation to establish it.

H.R. 10420, on the other hand, establishes authority for the Secretary of the Interior to prohibit the taking of ocean mammals where such protection is needed. It provides for scientific evaluation and the issuance of permits where there is a harvestable surplus. Continuous overview by an independent Marine Mammal Commission and the assistance of a committee of expert scientific advisors would assure the safety of these ocean resources. We must utilize our best technical and scientific knowledge to manage resources, whether they be trees or animals, rather than emotional reaction, no matter how sincere it may be. Conservation by its very definition is the wise and rational use of natural resources for man's needs, while recognizing that all must be perpetuated in a healthy environment.

In a letter to the Chairman, dated August 16, 1971, I recommended several changes in H.R. 10420 which would make it more acceptable and workable in my opinion. They are included as a part of this statement but will not be repeated here today. They follow.

Page 1.—Sec. 2(1)—replace "disappearance" with "depletion." Doubt if any species is in danger of extermination.

Page 2.—Sec. 2(2)—don't like the word "replenish". Sounds like a hatchery job. Populations should be "rebuilt" through management and protection.

Page 3.—Sec. 3(4)—permitting the taking of ocean mammals which occurs incident to commercial fishing operations could provide a big loophole. Would either limit or eliminate this.

Page 8.—Sec. 104(a)—why not take violations directly to federal court? I am against penalties, even civil, without due process of court review.

Page 12.—Sec. 107(a)—another big loophole if we give native Indians, Eskimos and Aleuts this much freedom. Look how American Indians have abused or even sold native hunting and fishing rights. Give them special but limited permits, if necessary, but don't leave the door open this wide.

Page 13.—Sec. 109—as I understand present law, these mammals all come under federal jurisdiction. The Secretary should work with the states but retain control over all harvest.

Page 18.—Sec. 202(6)(b)—can the Secretary change or veto recommendations of the Commission? Should spell this out more clearly.

Page 19.—Sec. 203—again, it should be more specific as to the function of the Director of the National Science Foundation, the Chairman of the National Academy of Science and the Secretary of the Smithsonian Institution. Is the Chairman limited to names submitted by these three for appointment to the Committee of Scientific Advisors?

Page 21.—Sec. 207—the authorization of only $1 million for research, enforcement, all commission activity and the Advisory Committee seems too low and unnecessarily limited. Why not leave it open ended or at least increased to $5 million?

In conclusion, Mr. Chairman, The American Forestry Association wishes to go on record strongly in support of legislation and a federal program to insure the protection of ocean mammals. We recommend, however, the managed use of these resources rather than total preservation. We should take whatever steps are necessary to insure the perpetuation of each specie, but it should be based upon the best scientific evidence we can find. Although we support both H.R. 7556 and H.R. 10420 in purpose, we must favor H.R. 10420 as being good conservation and oppose H.R. 7556 as being contradictory to good resource management.

STATEMENT BY DR. ROBERT RIENOW

My name is Dr. Robert Rienow. I am co-author of the widely read book, MOMENT IN THE SUN, a report on the deteriorating quality of American life, and a professor of Political Science specializing in International Law and Relations.

You and I are witnessing a corrosion of the sensitivities of Western man under the brutalizing impact of an egomaniac society. Man's whole history is marked by cruelty from the accounts of Herodutus to the drawing and quartering of human victims in England's Middle Ages.

But the drive, the official declaration of society has been upward. We don't bait bears, we ban cockfights, we debate the cruelties of the rodeo and struggle against the introduction of bullfights.

It is imperative that the United States set an uplifting pattern because the course this nation follows has universal significance. The world is of a single mold and as we Americans sear our feelings and condone the reckless slaughter of ocean mammals we render the rest of the world equally insensible.

If civilization will persist in a form that betrays any tenderness, a compassionate lead must be taken by this country. There are two compelling reasons to halt the butchery of ocean mammals. They exist only in sombre numbers pressing ever more the border of extinction. This is not a case of exterminating a species that can be replaced by a similar one from another territory. What we are dealing with here is the erasure for all time of a work of the Creator.

The second reason we must demand a cessation of the carnage is this: the killing of ocean mammals recently publicized, however, revolting to many of us, is accepted in what is already a culture of violence. A people that can be indifferent to the destiny of a species and hardened to the intemperate cruelty of the killing can never cultivate the sensitivity upon which to build a merciful social order. It is not without significance that the early humane societies were Societies for the Prevention of Cruelty to Children and Animals. A compassionate government cannot construct an Auschwitz. Nor can it hire club wielders to bludgeon their way through a herd of seals or condone an explosive harpon in the belly of a whale.

I would plead that this committee recognize the awesomeness of its mission to protect these ocean mammals at once so valuable to man's spirit and in such imminent danger of eternal darkness.

America will have difficulty earning a respected place in the annals of history if it presides over an Inquisition of Ocean Mammals. More than all this we can never live with ourselves if we exterminate these rare and majestic creatures of the sea.

STATEMENT BY WALTER S. BOARDMAN ON BEHALF OF DEFENDERS OF WILDLIFE

Mr. Chairman and Members of the Committee, my name is Walter S. Boardman. I am representing the *Defenders of Wildlife*, 2000 N Street, N.W., Washington, D.C.

Thank you for this invitation to present views on marine mammal protection.

In 1964, Brian Davies, after attending a meeting of the sealing industry with Canadian Government officials, reached the conclusion that "an over-capitalized sealing industry was intent on killing the last seal pup in order to get a return on its equipment, and that those who profit from the seals gave not one thought to their suffering." Thus began a campaign that has not only shaken the Canadian Government but has also awakened the conscience of many United States citizens. We are aware that we have a parallel situation with the marine mammals under our jurisdiction. It is noted that, in 1969, the Canadian counterpart to our Department of the Interior announced that no baby seals or whitecoats would be killed in 1970. Yet at the end of that season, Davies reported that the 1970 hunt was as bloody, brutal and sadistic as that of 1969. Furthermore, from one eyewitness of the 1971 slaughter, there was no real improvement.

We, in the United States, are fortunate in having a Congress that is more responsive to the will of the people. It provides opportunities such as this hearing where views can be expressed with the hope of responsive action. However, some are concerned lest the Congress place all responsibility in the hands of the Secretary of the Interior. If through a succession of secretaries, under different administrations, the program of predatory mammal control cannot be brought in check, we have little faith that the Department would be any more effective in the control of mammal killing for sport and profit.

While the Secretaries of Interior, Commerce and State Department all have present authority, the necessary additional limitations should be subject to frequent review by the Congress. This authority should not be surrendered to the administrative branch of the Government.

Since there is a dispute of data on the decline in numbers of some species and there is the question of the danger of extinction of others, it is suggested that there should be a five year moratorium on all killing except where governed by treaty. During that time, studies should be made and a management program submitted to Congress for action. The existing treaties should also be opened for renegotiation. It is apparent that the climate for world cooperation is improving and we have an opportunity for constructive leadership.

It is noted that one of the worst situations stems from the accidental killing of porpoises in connection with tuna fishing. Purse-netting is taking a very heavy toll on one of the most intelligent species on our earth. The claim of the industry that this destruction cannot be avoided is more a matter of inertia and convenience than fact. If this practice is excepted from a general moratorium, it should be related to research in finding ways to save the porpoises.

STATEMENT OF JOHN W. GRANDY, ADMINISTRATIVE ASSISTANT, WILDLIFE AT THE NATIONAL PARKS AND CONSERVATION ASSOCIATION

My name is John W. Grandy, IV, 1701 18th Street, NW., Washington, D.C., 20009. I am administrative assistant for Wildlife at the National Parks and Conservation Association. I appreciate the invitation of the committee to testify.

The National Parks and Conservation Association is the leading national conservation organization concerned primarily with the protection of the National Park System, but also with other major environmental and conservation subjects such as wildlife and forestry.

The NPCA is an independent private non-profit membership institution, educational and scientific in character, with nearly 55,000 members throughout the United States and abroad, all of whom receive the monthly National Parks and Conservation Magazine: The Environmental Journal.

Initially, the National Parks and Conservation Association recommends that provisions concerning the Pribilof fur seals and the associated treaty be deleted from H.R. 6554, since a relaxation or elimination of the treaty could mean mass extermination of the seals. Also the treaty provides clear evidence that substantive and workable international agreements can have a positive effect on the protection of life.

It is clear to this point, from discussions in this Committee and throughout the world, that stocks of most whales have been seriously depleted. The record in this regard has been fully covered by others (Statement of Tom Garrett, before the House Foreign Affairs Subcommittee on International Groups and Organizations, July 26, 1971); however, we still do not have an accurate estimate in many cases of the extent of the depletion. Some of the other ocean mammals such as walruses are not in immediate danger of extinction; but in some cases, the populations are recovering from past onslaughts (i.e., sea otter), or succumbing to present onslaughts (i.e., polar bear). In any case, the populations of the other species of ocean mammals are not at, or near, maximum sustainable levels. Certainly, any theory promoting maximum sustainable yield requires that populations be at, or near, maximum sustainable levels, and that only the surplus be removed. This is reason enough for even those interested in killing the ocean mammals to support a prohibition on killing.

In relation to the nations that participate in the International Whaling Commission (I.W.C.) and the rules adopted by the I.W.C., Dr. J. L. McHugh, United States Commissioner and Chairman, International Whaling Commission, stated: "It would be prudent to take the pessimistic view when the scientific evidence is not very precise, but when several nations are involved, the majority vote prevails" (Statement of Dr. J. L. McHugh, before U.S. House Foreign Affairs Committee, "The 23rd annual meeting of the International Whaling Commission". July 26, 1971).

Clearly, in the case of the proposed legislation (H.R. 6554), we are dealing with the policies and ethics of one nation, the United States. For this nation, the NPCA suggests that Congress take "the pessimistic view" since the scientific evidence is neither precise enough nor accurate enough to support further killing.

Except as noted, the NPCA supports the provisions of H.R. 6554. We believe that specific additions, corrections, or plaudits for this bill should be:

1. Taking (as defined in H.R. 6554) of ocean mammals (as defined in H.R. 6554, but excepting the fur seal) should be prohibited, individually, for each species to allow the affected ocean mammals to reach, or approach, maximum sustainable populations, subject to maintaining a balanced and healthy environment. Also, NPCA believes the Congress should continue to allow, where possible, taking of the ocean mammals by natives where they are dependent on the mammals for food and shelter.

2. An "Ocean Mammals Review Committee" consisting of at least eight (8) members should be appointed. Said committee might consist of: (1) no more than one (1) member each from the I.W.C., U.S. Department of the Interior, and a non-governmental environmental group such as the NPCA; (2) at least two (2) prominent marine ecologists from U.S. colleges or universities; (3) at least three (3) prominent ocean mammalogists of national or international origin.

Said Ocean Mammals Review Committee should be directed and funded to administer and support research by competent scientists on the population sizes, life histories, ecology, and behavior of the ocean mammals so that scientifically sound management of these species can be conducted. The Committee should report the results of these scientific investigations to this Congressional Subcommittee, so that the Congress can be aware of significant findings on, and changes in the status of, ocean mammals.

The National Parks and Conservation Association has no strong feelings concerning who should appoint the Ocean Mammals Review Committee, or what organization the Committee should work under. We want to see that basic biological research is conducted on these mammals, and we want safeguards against having the research be oriented toward killing. There is much basic information still unknown with reference to these mammals; research should be concentrated on determining this basic information—not on determining new methods of harvest.

3. It is a very important provision of H.R. 6554 that all importing of products from ocean mammals be discontinued for the length of the prohibitions.

4. Additional protection should be provided for the Florida manatee, since conventional power boats are apparently causing population losses (Hartman, D.S. 1969. Florida's manatees, mermaids in peril. *National Geographic* magazine, Vol. 136(3): 342–353.). The Committee might consider additional protection for the manatee by excluding outboard motor boats from public coastal waters where manatees concentrate.

5. It is very important that "accidental" killing of protected species such as the porpoise and dolphin be prohibited and subject to penalties. Recently much attention has been given this "accidental" killing (*Newsweek* magazine, September 6, 1971, p. 60). Almost no attention has been given the harassment of porpoises on the east coast of the United States by commercial fishermen. Harassment by shooting with rifles does occur and should be prohibited.

6. This Committee and H.R. 6554 should require additional international efforts so that working, workable agreements can be established in order to insure the survival and prosperity of all populations of all species of ocean mammals.

We thank you again for this invitation to submit testimony, and we hope you find our recommendations helpful.

STATEMENT BY HARRY B. CRANDALL, DIRECTOR OF WILDERNESS REVIEWS, THE WILDERNESS SOCIETY, WASHINGTON, D.C.

Mr. Chairman, the Wilderness Society appreciates the opportunity to comment on H.R. 6554, H.R. 10420 and other proposals before this Committee which would partially or totally ban the killing of all ocean mammals.

The Wilderness Society is a national conservation organization of 70,000 members which serves the public interest through its work for the preservation, protection, and wise management of our wildlife and the survival of endangered animal species. Headquarters of the Society are at 729 Fifteenth Street, N.W., Washington, D.C.

The Society has long been associated with citizen efforts on behalf of the many species of ocean mammals which live and breed along our coasts and territorial waters. When compared with land animals, these species have received relatively little public attention, not as a consequence of indifference but rather because to most of us they remain unknown entities. Few have had opportunity to observe these animals in their natural habitat, nor have their habits and great importance become sufficiently well known to arouse public interest in the survival and welfare of these species. They are primarily nomads of the high seas, inaccessible to the general public and elusive even to the sophisticated tracking devices of marine biologists. And although some of us might envy them this circumstance, their remoteness is perhaps the very source of their present jeopardy. Unseen they have been left largely unprotected, and while some species have been the subject of recent, dedicated research, these studies are at best a scant beginning and come at a time when, paradoxically, opportunities to observe and study ocean mammals are rapidly diminishing.

We appreciate your invitation to express our full and wholehearted support for legislation that would provide the strong protection and wise management upon which the survival of ocean mammals will ultimately depend. Of the various proposals under consideration, it is our view that the bill entitled "The Marine Mammals Protection Act of 1971" offers the most viable basis for developing a sound program of protection and management. In addition to the broad protections it affords, this bill provides for organized research and management review, and directs the development of international agreements for the protection of marine mammals, two concepts we believe are indispensible to the eventual effectiveness of this legislation.

There are, however, several aspects of the act on which we would like to offer particular comment. We believe that preservation of the named species should be stated unequivocally as being the essential purpose of the act. This should be the objective of management and research and should clearly preclude any other conflicting activity including commercial harvest or capture of animals for public display.

To implement this principle, we urge that preliminary studies of each species be undertaken immediately to furnish as quickly as possible information for determining needed management. As a means of establishing interim protection, the act should set a temporary moratorium on the taking of all ocean mammals for any purpose other than authorized research. The length of the moratorium should be determined according to species and allow for the special problems encountered in the research of each. The moratoriums may be lifted once this preliminary research has been evaluated and management prescribed, except in those cases where the studies indicate a need for extended or permanent bans, as may well be the finding with regard to whales and polar bears. Extensions might be required to facilitate further study or as a feature of management.

In view of the special circumstances involved in the harvest of fur seals on the Pribilof Islands, it may be necessary or prudent to exempt this activity from the moratorium restriction. Section 110, which directs a review of the Pribilof harvest to determine its consistency with the purposes and policy of the act, seems a more appropriate approach to this situation.

We specifically endorse the overall exception permitting Eskimos, Indians and Aleuts to take any marine mammals for subsistence purposes or in conjunction with their cultural tradition. Neither the proposed moratorium nor any provision of the act should enjoin these traditional practices.

We do not believe, however, that general exception should be made for the capture of marine mammals for zoos or similar public display purposes, or for medical research other than that required for the preservation and welfare of the species named in the act. Permission to capture zoo specimens should be contingent upon management policy and subject to any moratorium restrictions.

We feel that the act should be expanded to provide both the authority and funds for husbandry programs to assist animal propagation where it is found to be feasible and necessary. Similarly, efforts should be undertaken to reestablish species in native areas from which they have disappeared or become extinct as a result of man's activities. It is hoped that the research provision of this act would not preclude cooperation with state programs of wildlife research, pooling resources with university research programs, or sponsoring the continued work of marine biologists and noted authorities on ocean mammals. Consideration should also be given to establishment of state cooperative ocean mammals research units which would be similar in purpose and function to existing cooperative fishery and wildlife research units.

The importance of developing an international program cannot be overemphasized, for without cooperation, the endeavors and indeed the purpose of this legislation risk being thwarted at their inception. We strongly endorse the import restrictions and suggest that they be strengthened by requirements that all ocean mammals (and derivative products such as skins, tusks, oil, etc.) commercially taken by authority of this act or by international agreement bear a tag or other form of identification.

It is our hope that the various species of sea turtle will be added to the list of animals to be protected under this act. Harvested to the point of extinction, their remarkable homing instinct has long intrigued scientists and provided endless wonder to laymen. Although they are not mammals, in every other respect they qualify for, and badly need protection.

Finally, we would like to call attention to the grave danger, particularly to porpoises, inherent in the acts' definition of the term "take," specifically the phrase, "but such term does not include the taking of marine mammals which occurs as an incident to commercial fishing operations," (Sec. 3(4)). It has been estimated that some 200,000 porpoises die each year in tuna purse seine nets, a staggering and tragic waste that will continue unless this phrase is deleted from the act. Furthermore, it is urgent that priority be given to investigation of the causes of porpoise mortality in net and that scientists and commercial fishermen cooperate in redesigning nets and procedures to permit maximum escapement.

The Marine Mammals Protection Act of 1971 merits your consideration as the best approach to this most necessary legislation. Although we believe it could be improved, especially by the moratorium provision, this act nevertheless represents a major step toward a better environment and a singular accomplishment of this Committee. We urge Congress to enact this legislation.

Statement of Brian D. Davies, Executive Director, International Fund for Animal Welfare Inc.

The International Fund for Animal Welfare with 40,000 members in 26 countries support the principles embodied in S. 1315 and H.R. 6558.

This writer makes no claim to expertise on all marine mammals, but he has had considerable experience with harp seals. On six consecutive occasions he has witnessed the annual barbarism at the Gulf of St. Lawrence baby seal clubbing festival.

On every occasion he has obtained evidence of cruelty. In 1971, for example, two men were seen to hold down on its back what was apparently a live baby seal while a third man proceeded to cut up its middle preparatory to skinning it. In addition, the evident maternal concern of the female adults is a powerful argument against the killing of this threatened species.

A Gallup Poll undertaken in Canada by a reputable fact finding organization (Canadian Facts Co., Ltd., Toronto, Ont.) produced the following expression of Canadian public opinion:

	Percent of total adult Canadians
Have heard of seal hunt	74
	(100)
Feel there is significant cruelty	64
Feel there is no real cruelty	23
No opinion	13
In favour of stopping the hunt	54
Against stopping the hunt	22
No opinion	24

It would seem that in spite of the official stand of the Canadian Government, which supports the baby seal clubbing festival, a majority of Canadians would favour legislation anywhere that would help eliminate the world's bloodiest and most cruel hunt.

AMERICAN SOCIETY OF MAMMALOGISTS,
September 17, 1971.

HON. JOHN D. DINGELL,
Chairman, Subcommittee on Fisheries and Wildlife Conservation, U.S. House of Representatives, Longworth House Office Building, Washington, D.C.

DEAR CONGRESSMAN DINGELL: I wish to thank you for your invitation to comment on the relative merits of two of the bills relating to marine mammals pending before the Committee on Merchant Marine and Fisheries, namely H.R. 7556 (Ocean Mammal Protection Act of 1971) and H.R. 10420 (Marine Mammal Protection Act of 1971). The authors and supporters of both bills are to be commended for their awareness of the ecological, scientific, and esthetic importance of marine mammals and for their efforts to further insure the protection of these valuable ceatures.

Comparing the two bills, it is my opinion that H.R. 10420 is the better. H.R. 7556 is overly restrictive and narrower in concept. In advocating an absolute ban on the taking of all marine mammals except for use by Indians and Eskimos and scientific purposes, H.R. 7556 ignores the fact that proper management based on thorough biological knowledge of the species and sound ecological principles can provide a harvestable surplus of animals for man's use without detriment to the population. The success of this approach has been well demonstrated in the case of certain marine mammals, notably the Alaskan fur seal. Without some economic incentive, it is doubtful if in such cases the federal government would have been willing to invest the money for the basic research on the biology and ecology of these species necessary for their wise management nor as vigorously pursued international agreements to regulate the harvesting of the surplus population. On an even broader basis, much basic environmental knowledge and preservation of natural areas benefiting game as well as nongame wildlife has come about as a direct result of interest in sport hunting and fishing. This idea is well expressed in the enclosed copy of a resolution passed by the American Society of Mammalogists at its last annual meeting (June 1971) at Vancouver, Canada. Although increased public appreciation of wildlife for its basic ecological importance and esthetic value may eventually replace sportsmen interest in protecting wild species and habitats, sporting activities and economic considerations will probably continue for some time in the future as very important forces for conservation.

Another drawback of H.R. 7556 would seem to be that in terminating such international agreements as the existing International Convention for the Conservation of the North Pacific Fur Seals, it would be exposing these species to the type of ruthless exploitation that originally threatened their survival. Judging from conditions in the whale industry, without some economic incentive it is unlikely that some countries with vested economic interest in marine mammals would readily enter into international agreements involving complete protection of all species irregardless of their present status and potential for management.

In addition to the fact that it takes a broader and more reasonable approach to the conservation of marine mammal stocks, I prefer H.R. 10420 because of its proposal to establish an independent three-man Marine Mammal Commission to oversee the entire program. It appears to me that this administrative setup will provide for valuable input from the scientific community and other interested sectors of our population and remove some of the decision-making functions from mission-oriented agencies. Hopefully, this committee will provide additional support and stimulus for increased research on the basic biology of marine mammal species. At present, we simply do not have sufficient in-depth information on particular species or stocks to assess their status and make intelligent recommendations for management.

I should like to emphasize that the above remarks represent my personal views. However, at its annual meeting last June, The American Society of Mammalogists passed a resolution (copy enclosed) urging that any legislation relating to marine mammals should incorporate the philosophy of rational management where applicable rather than blanket prohibition of utilization.

Yours sincerely,

JAMES N. LAYNE, *President.*

GAME MANAGEMENT AND HUNTING ACTIVITIES

RESOLUTION PASSED AT 1971 ANNUAL MEETING OF THE AMERICAN SOCIETY OF MAMMALOGISTS, VANCOUVER, CANADA

Whereas, there is an immense existing and potential influence of the hunting and fishing public in matters affecting the maintenance of habitats and natural biotas; and

Whereas, there is a rapid rise of anti-hunting sentiment in other sectors of the public, which is exploited by the news media, in dramatizing and thereby polarizing opinion of the issue; and

Whereas, the scientific investigation and management by game biologists continues to provide basic biologic information regarding the harvested species and insures survival for the enjoyment of the non-hunter as well as the hunter: Now, therefore be it

Resolved, That the American Society of Mammalogists inform the Federal, Provincial and State Governments of its deep concern regarding the recent increase in protests against legitimate hunting activities; and be it further

Resolved, That the American Society of Mammalogists reaffirm its belief that the maintenance of hunting opportunity can help to perpetuate wildlife populations and wildlife habitats, and to preserve healthy populations of animals for the enjoyment of all.

MANAGEMENT OF MARINE MAMMALS

Whereas, legislation was recently introduced in the United States Congress totally prohibiting the harvesting of marine mammals; and

Whereas, such legislation, if adopted would have the effect of nullifying existing international agreements and prevent sound conservation management of these resources on a sustainable basis; and

Whereas, marine mammals (such as the sea otter, northern fur seal, Steller's sea lion, California sea lion, Pacific walrus, and northern elephant seal) that formerly were seriously threatened, have been restored to greatly improved population levels by sound conservation and management policies and practices: Now therefore be it

Resolved, That the American Society of Mammalogists supports the principle of rational management of marine mammals species; and be it further

Resolved, That said policies be extended by additional international agreements for the conservation and management of marine mammals, particularly in international waters.

DOVER, N.H., *September 22, 1971.*

FRANK POTTER Jr.,
Counsel, Committee on Merchant Marine and Fisheries.

DEAR MR. POTTER: At your request, the following impressions of the status of Harbor Seals (Phoca vitulina) and Gray Seals (Halichoerus grypus) in the area of Mount Desert Island, Maine is submitted. This information is, necessarily, tentative based on the findings of the first three months of a two year study of seals in the vicinity of Acadia National Park. This study is funded by the National Park Service and the investigator is employed by the contracting agency, the Maine Department of Sea and Shore Fisheries.

The study area comprises approximately three hundred square miles including the waters of Frenchman, Blue Hill and Jericho Bays from Schoodic Peninsula to the north to Isle Au Haut to the south. A preliminary aerial survey of this area was taken on two successive mid morning low tides in June 1971. Using photographs of seals hauled out sunning at 65 locations revealed a population of approximately 1000 seals. Literature investigation suggests to the investigator that the sex ratio is very nearly equal in both species, that one pup is normally born per female, and that apparently about 80 per cent of mature females bear young and that in a random population sampling immatures are in about equal numbers to mature seals. It is therefore deduced that a yearly birth of 200 pups could be expected in the study area. However due to stillbirth, accidents, being swept out to sea, disease by known pathogens and infection by roundworm parasites and natural predation (of pups) by eagles and hawks, sharks and possibly whales, 50 per cent of all pups might be expected to reach breeding maturity. Therefore in this area of the Maine coast of approximately 36 linear miles a population of 1000 seals and a yearly addition to future breeding stocks of 100 pups might be expected.

Artificial predation pressures on this seal population, however, appear to be substantial. The greatest predation pressure appears to be the taking of pups in about the first month of life for public entertainment and amusement "parks" and for biomedical, physiological and other research purposes. In addition it is known by this investigator that seals are shot by fishermen as a nuisance to the few remaining weir fishing interests in the area. Although most lobster fishermen will claim that seals prey on shedding lobsters it appears that few bother to actually shoot seals. This form of predation appears to be much less at present than in past years. The shooting of seals "just for sport" has probably also declined greatly in recent years although there are scattered reports of indiscriminate shooting at seals for no good reason.

It remains to be seen in this investigation what other artificial predation pressures such as pollution effects (which may be quite limited in this study area) and the increasingly effective fishing technologies may have on the seal population. Most lobstermen and "shrimpers" feel that their own industry is being "over fished" and that some measures must be taken to preserve the natural spawning grounds and spawning stocks of the finfish to insure a sustained yield for the industry. If such a decline in fish is real then an additional threat to the seal population may be real.

The habits of the Harbor and Grey seals are closely tied to the tide cycle with most hunting activity taking place on the incoming and high tide and resting, sunning and sleeping activities taking place hauled out on sunning ledges; usually half-tide ledges or small islands offshore or in more remote areas of the bays and estuaries. Preferred ledges are of gentle slope, seaweed covered and remote from boat traffic and intense lobstering activity. Seals are very wary of approaching people, especially when in unfamiliar boats. This reveals the seal's thorough understanding of man's long-standing predatory role. It is only the very young pup of less than two weeks that seems unafraid to approach man and is quickly discouraged from doing so by its mother. All seals are quite curious, however, and enjoy cavorting and playfully encircling and diving near the investigator's boat.

Changes in distribution of the populations of both species is not well documented now but does appear to involve some seasonal movement offshore in colder months and a consolidation of smaller herds or colonies following the pupping season.

In summary, only initial hypotheses and preliminary data can be given to a quite complex picture of the status of seals in this area of the Maine coast. There has been growing concern recently in this area for the welfare and preservation of seals and a growing consciousness that deterioration of the environment in the form of harbor pollution and "human erosion" of wildlands must be curbed. This new consciousness should prove valuable in the mounting effort to preserve wildlife. At present the seal population about Acadia National Park is probably not in immediate danger of extinction. But given the ever-present natural predation pressures and the ever-increasing artificial predation pressures by man the seal population might best be termed as "highly vulnerable" at present. In this investigator's opinion seals are important in their own right and are of immense interest and joy to visitors and residents of Maine. Some form of protection and possibly a future management policy is needed to insure the continuance of this highly fascinating and endearing member of Maine's diverse fauna.

Respectfully submitted.

David T. Richardson.

Department of the Navy,
Naval Undersea Research and Development Center,
San Diego, Calif., September 15, 1971.

Hon. John Dingell,
House Office Building,
Washington, D.C.

Dear Representative Dingell: I am writing you regarding the various bills for the protection of marine mammals on which you are currently holding hearings.

As a principal in the initial development of the Navy's marine mammal facility and research program at Point Mugu, California, I am concerned about the possible effects of restrictive legislation on our future work (now being conducted in San Diego and Hawaii) and the work of our colleagues at other research institutions. (For your information regarding the nature of research done under the Navy program, I enclose an annotated bibliography of reports published in the open literature.)

As curator of the original Marineland in Florida from 1951 to 1963, I am specially aware of the contributions to scientific knowledge made by that institution and by other commercial oceanariums which followed it. The Marineland Research Laboratory was built primarily for the benefit of visiting investigators who were provided facilities and specimens without charge. The most significant observations published on the behavior of small cetaceans have, with very few exceptions, being made at the Florida and California Marinelands.

I would urge your committee to distinguish between those institutions which employ competent biologists and veterinarians and contribute to advancing scientific knowledge and the state of the art in care and maintenance of marine mammals, and those which are ill-informed, uncaring, and wasteful of our biological resources.

Some of the legislation you are considering, notably the Harris Senate Bill and Representative Pryor's H.R. 6554, would—as originally drafted, at least—have put the commercial oceanariums out of business and severely restricted the operations of non-profit zoos and aquariums. Yet if it were not for the pioneering efforts of the major commercial oceanariums our knowledge of the small cetaceans would still be rudimentary, scientific investigations at research institutions (including the Navy's) would either not have gotten under way or would have been delayed for decades, and public interest and concern would be virtually non-existent.

Everyone I know in this business agrees that controls are desirable. But there is also agreement that highly restrictive and strictly protective legislation is unwise, that truly effective and enlightened measures will be based on concepts of regulation and management. The provisions that no new species of marine mammal can be brought into captivity make no sense at all, nor do other restrictions which would hamper the acquisition of knowledge.

There is still much to be learned about these mammals that have become so highly adapted to an aquatic existence. They constitute a rich store house of information that can benefit man in various ways. But man also needs to learn more about them if he is to adequately protect and preserve them. I hope you and your committee will be alert to proposed measures that would hinder us from acquiring additional knowledge about these remarkable creatures.

F. G. WOODS,
Senior Scientist and Consultant,
Ocean Sciences Department.

ANNOTED BIBLIOGRAPHY OF PUBLICATIONS FROM THE NAVY MARINE MAMMAL PROGRAM

SOUND, SONAR, COMMUNICATION

Evans, W. E. 1967 Vocalization among marine mammals. In: Marine BioAcoustics Vol. II, pp. 159–186 (Ed. W. N. Tavolga) Pergamon Press.

An account of the kinds of sounds produced by marine mammals with discussion of what is known regarding their significance.

Powell, B. A., 1966. Periodicity of vocal activity of captive Atlantic bottlenose dolphins, *Tursiops truncatus*. Bull. So. Calif. Academy Sciences *65* (4) : 237–244.

Periodicity of vocal activity was found to be related to feeding periods and could be altered by changing the feeding schedule.

Cummings, W. C. et 1968. Underwater sounds of migrating gray whales, *Eschrichtius glaucus* (Cope). Jour. Acoustical Soc. Am. *44* (5) : 1278–1281.

"Moans" lasting 1.5 sec. were the most common sounds recorded. Underwater sounds ranged in frequency from 15 to 200 Hz.

Fish, J. F. and H. E. Winn 1969. Sounds of marine animals, Encyclopedia of Marine Resources, (Ed. F. E. Firth) Van Nostrand Reinhold Co., pp. 649–655.

Summarizes important contributions to our knowledge of marine mammal sound production and hearing. Includes the major papers up to 1967.

Thompson, P. O. 1965. Deep water recordings of pinniped sounds. Proceedings of Second Annual Conference on Biological Sonar and Diving Mammals, Stanford Research Institute.

Describes, in detail, underwater recordings of barking sounds from California sea lions off San Clemente Island. Diurnal characteristics, spectrum plots, and sonagrams are included.

Thompson, P. O. and R. C. Cook 1967. Sound production of migrating gray whales, *Eschrichtius gibbosus* Exrleben (abstract). Journ. Acoustical Soc. Am., 42 (5) : 1211.

Abstract of a paper presented to the ASA which reports low frequency moaning sounds from gray whales while they were migrating to Mexico from the Bering Sea.

Thompson, P. O. and R. D. Cooke 1968. Underwater sounds of migrating gray whales, *Eschrichtius glaucus* (Cope). Jour. Acoustical Soc. Am., *44* (5) : 1278–1281.

Includes methods, results, and discussion of work done on sound production of gray whales. Three categories of sounds range in frequency from 15 to 305 Hz at source levels up to 52 dB re 1 microbar at 1 yd. New findings concerning gray whale behavior are presented.

Northrop, J., W. C. Cummings, and P.O. Thompson 1968. 20–Hz Signals observed in the Central Pacific. Jour. Acoustical Soc. Am., *43* (2) : 383–384.

Reports show, 20–Hz signals from the mid Pacific area. These signals had source levels that ranged from 65 to 100 dB re 1 microbar at 1 yd. The original strength, source movement, and seasonal peak suggested the sounds were from a biological source, probably the finback whale.

Thompson, P. O. and W. C. Cummigs 1969. Sound production of the finback whale. *Balaeoptera physalus*, and Eden's whale, *B. edeni*, in the Gulf of California (abstract). Proceedings of the 6th Annual Conference of Biological Sonar and Diving Mammals, Stanford Research Institute, p. 109.

Describes powerful, low-frequency sounds from two species of whales found in the Gulf of California. Finback signals ranged from 20–100 Hz, while those from Eden's whale averaged 124 Hz. Although finbacks have been suspected as sources of 20–Hz signals, these were not encountered among the 1800 phonations recorded from some 70 finbacks.

Cummings, W. C. 1969 Whales, porpoises, dolphins and confusion. Oceans Magazine, 1 (4) : 30–31.

Discusses the problems encountered in using common names for various cetacean taxa. To avoid confusion, this article suggests that the term "dolphin" be avoided in favor of "porpoise", a common practice by many cetologists.

Johnson, C. S. 1967 The possible use of phase information in target discrimination, and the role of pulse rate in porpoise echoranging. In : Animal Sonar Systems-Biology and Bionics, Vol. 1, 384–308 (Ed. R. G. Busnel, Laboratoire de Physiologic Acoustique, Jouye-en-Josas 78, France)

A discussion of the paper by Evans and Powell (see reference on page 4). On the basis of theoretical considerations there are phase differences in reflected pulse shapes which may be utilized by the porpoise. An analysis of pulse rate vs range and time indicates that decreasing pulse is based on time before target contact rather than range.

Johnson, C. S. 1968 Relation between absolute threshold and duration-of-tone Bio-Acoustics Vol. 2, 247-260 (Ed. W. N. Tavolga) Pergamon Press.

Using a behavioral response method, an audiogram was determined for a bottlenose porpoise. Hearing range was 70–150 kHz.

Johnson, C. S. 1968 Relation between absolute threshold and duration-of-tone pulses in the bottlenosed porpoise. Jour. Acoustical Soc. Am. *43* (4) : 757–763.

This study indicated that the porpoise, in detecting pure tone stimuli, intergrated the acoustic energy in essentially the same way as humans.

Johnson, C. S. 1969 Masked tonal thresholds in the bottlenosed porpoise. Jour. Acoustical Soc. Am. *44* (4) : 965–967.

An analysis of hearing thresholds when a narrow band of frequencies is masked by broad-bank noise.

Johnson, C. S. 1970 Auditory masking of one pure tone by another in the bottlenosed porpoise. Jour. Acoustical Soc. Am. *48* (5) : 7328.

Lang, T. G. and H. A. P. Smith 1965 Communication between dolphins in separate tanks by way of an acoustic lind. Science *150* (3705) : 1839–1843.

Alternating exchange of whistles occurred between two dolphins.

Bastian, J. 1966 The transmission of arbitrary environmental information between bottlenose dolphins. In: Animal Sonar Systems/Biology and Bionics, Vol. II, pp. 803–873 (Ed. R. G. Busnel, Laboratiore de Physiologie Acoustique, Jouyen-Josas 78, France)

Bastian, J. et al. 1968 Further investigation of the transmission of arbitrary information between bottlenose dolphins. NUWC TP 109 (a technical publication of the Naval Undersea Research and Development Center).

The above two papers describe studies designed to ascertain if one porpoise, presented with either a flashing or steady light, can, by acoustic signals alone, "tell" another porpoise to push one or the other of two paddles.

Evans, W. E. and B. A. Powell 1967 Discrimination of different metallic plates by an echolocating delphinid. In: Animal Sonar Systems—Biology & Bionics, Vol. 1, pp 363–383 (Ed. R. G. Busnel, Laboratoire de Physiologie Acoustique, Jouyen-Joses 78, France).

A bottlenose dolphin, blindfolded, was found to be capable of discriminating by echolocation a 30 cm diameter target (paddle) of 0.22 cm copper plate when paired with targets of other materials, including aluminum plate.

Evans, W. E. 1967 Discussion of: Mechanisms of overcoming interference in echolocating animals, by A. D. Grinnell. In: Animal Sonar Systems—Biology & Bionics, Vol. 2, pp 495–503 (Ed. R. G. Busnel, Laboratoire de Physiologie Acoustique, Jouy-en-Josas 78, France).

Discusses some of the possible interference factors in biological echolocation in the aquatic environment.

Evans, W. E. and J. Bastian 1969 Marine mammal communication; social and ecological factors. In: The Biology of Marine Mammals, pp 425–475 (Ed. H. T. Andersen) Academic Press.

While many sounds made by marine mammals have social and communicative significance, there is no good evidence that porpoises (regarding which there has been much speculation) possess a language comparable to human language.

Caldwell, M. C. et al 1966 Sounds and behavior of captive Amazon dolphin, *Inia geoffrensis*. Contributions in Science, Los Angeles County Museum, No. 108:1–24.

Inia emits pulsed phonations that could be used for echolocation. The freshwater dolphins were not fearful of strange objects (as *Tursiops* usually is) and exhibited curiosity and playfulness.

Penner, R. H. and A. E. Murchison 1970 Experimentally demonstrated echolocation in the Amazon River porpoise, *inia geoffrensis*. NUC TP 187 (a technical publication of the Naval Undersea Research and Development Center).

An analysis of the ability of a freshwater porpoise to discriminate, by echolocation, wires or tubes of different diameters.

Anonymous, 1970 Giant blue whale's detected by naval scientists. Commercial Fisheries Review, *32* (10):14.

Blue whales encountered by W. C. Cummings and P. O. Thompson, produced 37 sec. murmurs that ranged from below 20 to 250 Hz. The sounds were about 80db re 1 microbar at 1 yd and were repeated at regular intervals.

Northrop, J. and W. C. Cummings and Michael F. Morrison (In Press) Underwater 20-Hz signals recorded near Midway Island.

This paper describes doublets of 25 sec., 20-Hz signals believed to be from whales. Signals occurred in trains of source levels ranging from 53 to 71 dB re 1 microbar at 1 yd.

Anonymous, 1970 Sound stops white whale. Bio Science, *20* (15):881.

Summarizes work of J. F. Fish and J. Vania wherein killer whale sounds were played back to white whales in Alaskan waters. Playbacks proved to be a very effective means of keeping the white whales from the Kvichak River where they normally prey heavily upon young salmon migrating over to sea.

Anonymous, 1970 Gray whales avoid sounds of killer whales. Oceanology International, May 1970, P. 9.

Summarizes work of W. C. Cummings and P. O. Thompson in an attempt to learn if the movements of migrating gray whales could be affected by playing back killer whale sounds. Playback effectively caused gray whales to avoid the source of these sounds whereas controls generally did not cause an avoidance.

PHYSIOLOGY

Coulombe, H. N. et al 1965 Respiratory water exchange in two species of porpoise. Science *149* (3679) :86–88.

The exhalations of the two species of porpoises examined contain less water vapor than those of terrestrial mammals. This is seen as an adaptation to conserve water in these animals which live in an environment where no fresh water is available.

Ridgway, S. H. and D. G. Johnston 1966 Blood oxygen and ecology of porpoises of three genera. Science *151* (3709) :456–458.

The total blood-oxygen content of the highly active, deep diving Dall porpoise is almost three times that of the coastal dwelling bottlenose. The pelagic white-sided dolphin, less active than the Dall, is intermediate. Heart weight of the Dall porpoise is about 140 percent that of the bottlenose.

Horvath, S. M. et al 1968 Respiratory and electrophoretic characteristics of hemoglobin of porpoises and sea lion. Comp. Biochem. Physiol. *24* :1027–1033.

Porpoises which swim faster and dive longer and deeper have greater hemoglobin oxygen affinity than the slower-swimming, shallower and shorter-diving species.

Ridgway, S. H. 1966 Studies on diving depth and duration in *Tursiops truncatus*. Proceedings of the 1966 Conference on Biological Sonar and Diving Mammals, 151–158. Stanford Research Institute, Menlo Park, California.

Ridgway, S. H. et al 1969 Respiration and deep diving in the bottlenose porpoise. Science *166* :1651–1654.

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A broad account of the characteristics and behavior of the bottlenose dophin as they relate to health care and biomedical research.

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Describes a technique for anesthetizing sea lions, and the configuration of a unique restraining cage which enables the animal to be examined, treated, or anesthetized without harm to either the sea lion or the handlers.

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Patashnik, Max et al 1969 Development of stabilized fish rations for porpoises and other marine mammals held in aquaria. Final report on contract with Bureau of Commercial Fisheries, Technological Laboratory, Seattle, Washington.

Myhre, B. A., J. G. Simpson, and S. H. Ridgway 1969 Blood groups in the Atlantic bottlenose porpoise (*Tursiops truncatus*).

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Simpson, J. G. and W. G. Gilmartin 1970 An investigation of elephant seal and sea lion mortality on San Miguel Island. Bio-Science, 1 March 1970, P. 289.

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Detailed account of the participation of "Tuffy" in Sealab II.

Evans, W. E. and S. R. Harmon 1968 Experimenting with trained pinnipeds in the open sea. In: The Behavior and Physiology of Pinnipeds, pp. 196–208 (Ed Harrison et al) Appleton-Century-Crofts.

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Describes training procedures for open sea release.

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Similar to the preceding, but has to do only with white-striped dolphins.

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Lang, T. G. and K. S. Norris 1966 Swimming speed of a Pacific bottlenose porpoise. Science *151*:588–590.

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The above two papers describe open ocean speed runs of trained porpoises. Top speeds recorded were 16.1 knots (*Tursiops gilli*) and 21.4 knots (*Stenella attenuata*). The results compared closely with highest predictions based on rigid body drag calculations and estimated available power output.

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A detailed discussion of cetacean hydrolynamic performance, presented at the First International Symposium on Cetacean Research held in Washington, D.C., in August 1963.

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Herald, E. S. 1969 A field and aquarium study of the blind river dolphin (*Platanista gangetica*) NUC TP 153 (a technical publication of the Naval Undersea Research and Development Center).

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Account of work by W. E. Evans, Naval Undersea Research and Development Center, on tracking radio-tagged dolphins.

Wood, F. G. et al 1966 Round Table: Practical Problems. In: Whales, Dolphins, and Porpoises, pp. 649–673 (Ed. K. S. Norris) U. of Calif. Press.

A round-table discussion on capture, transport, holding facilities, health care, and psychological factors, at the First International Symposium on Cetacean Research in Washington, D.C. in August 1963.

Evans, W. E. and E. S. Herald 1970 Underwater calls of a captive Amazon manatee, *Trichechus inunquis*. Journal Mammalogy *51* (4): 820–823.

Wood, F. G. et al 1970 Behavioral inter-actions between porpoises and sharks. In: Investigations on Cetacea, pp. 264–279 (Ed. G. Pilleri) Institute of Brain Anatomy, Berne, Switzerland.

Sometimes porpoises attack sharks, sometimes sharks attack (and eat) porpoises, and sometimes mutual tolerance is exhibited. The relationship of porpoises and sharks is still inadequately understood.

Herald, E. S. et al 1969 Blind river dolphin: first side-swimming cetacean. Science *166*: 1402–1410.

Blind river dolphins ("susu") from the Indus River of Pakistan swim on their sides. Presumably, this permits a lateral echolocation sweep of the bottom. Underwater sound emissions of pulse trains are produced continuously.

Evans, W. E. 1970 Uses of advanced space technology and upgrading the future of oceanography. AIAA Paper No. 70–1273.

Two species of small whales equipped with small radio telemetry packages so that their movements could be tracked have provided information on the animals' physical environment as a function of depth. Further data have been derived on areas of high biologic productivity and underwater topographical features. Telemetering via satellite would greatly extend the utility of this technique to oceanology.

CANADIAN AND AMERICAN WOLF DEFENDERS,
Carmel Valley, Calif., September 1, 1971.

There is nothing to be gained by recapping for you, and for others all too familiar with the facts, the horrors implicit in man's relationship with all living creatures.

Our beautiful world is running with blood; every creature on earth is terrified of human beings; his life is one long agony of fear, or suffering, or impending horrible death.

There is a sickness abroad in our world, a moral, psychological sickness. Dr. Abraham Maslow, Chairman of the Department of Psychology at Brandeis University, in his epochal contribution to the understanding of human nature, has brought this moral sickness into sharp focus.

Dr. Maslow has explored the essential differences between the healthy, the ideal, the fulfilled human being, and the sick, the imperfect, the undeveloped human being.

According to Dr. Maslow, an important characteristic of fully developed people is their ability to perceive other people, and the world, as not existing for their gratification, but as valuable in themselves, to be studied, appreciated, loved; Maslow's "ideal human being" simply does not have to see the world around him as "for" him, it is "for" itself; for the healthy human being neither people, nor nature, are tools, nor suppliers.

In the light of this profound thinking the notion that nature is there for us to use, to exploit, like a gigantic super-market where we can take what we can pay for with our weapons, our technology, our power, is the grossest sickness.

The slaughter of the seals is only one of the more spectacular examples of this sick thinking which calls itself "use," "management," "control."

In the words of Rachel Carson, "The 'control of nature' is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man."

We Canadian and American Wolf Defenders are demanding of our Senators and Congressmen that they support the Harris-Pryor Bill as a critical step toward a decent relationship between man and nature, and for the salvation of man's vanishing self-respect.

Yours truly,

ARABY COLTON, *President.*

FUR BROKERS ASSOCIATION OF AMERICA, INC.,
New York, N.Y., September 22, 1971.

SUBCOMMITTEE OF FISHERIES AND WILDLIFE CONSERVATION,
House Committee on Merchant Marine and Fisheries,
Longworth House Office Building, Washington, D.C.

GENTLEMEN: We are in favor of Bill HR 10420, but strongly opposed to Bills HR 7555, 6554, and 6558.

The latter bills, if enacted, would make the taking of any ocean mammal a criminal offense and would terminate the Four Nation Fur Seal Convention. It would deprive the native Aleuts of their livelihood and also would cause untold hardships to thousands of workers and taxpayers in the American fur industry.

Very truly yours,

PAUL SCHULMAN, *Secretary.*

MARINELAND OF THE PACIFIC, INC.,
Palos Verdes Peninsula, Calif., September 16, 1971.

Hon. JOHN D. DINGELL,
Chairman, Fish and Wildlife Conservation Subcommittee, Committee on Merchant Marine and Fisheries, U.S. House of Representatives, Longworth House Office Building, Washington, D.C.

DEAR SIR: It has come to my attention that you are in the process of holding hearings on H.R. 10420. Rather than labor you with a long dissertation of our comments on this proposed legislation, I am enclosing the following:

1. A letter to the Honorable Fred R. Harris, United States Senate, in regard to a similar bill (S. 1315).
2. A memorandum that I have asked John Prescott, who is Vice President-Curator of Marineland of the Pacific, to prepare for me on this subject.
3. Descriptive material about our project here in order to provide a broad view of our activities.

We take very good care of our marine mammals—it is obvious that it is to our best interest to do so—and operate under strict control of both the California Fish and Game Department and the Federal Fish and Wildlife Commission.

You will note from the literature enclosed that our industry as a whole probably entertains about twenty million people each year, a very large number of whom are children.

We abhor the killing and mistreatment of marine mammals on an uncontrolled basis and stand ready to support every effort to eliminate any improper practices. I hope that you and your associates will agree that we, and the others in our industry, are helpful in attaining the purposes which the various pieces of legislature hope to achieve.

I will be pleased to add anything that you may require in the way of information and stand ready to appear should you think it helpful.

Respectfully,

WILLIAM F. MONAHAN.

MARINELAND OF THE PACIFIC, INC.,
Palos Verdes Peninsula, Calif., May 28, 1971.

Re proposed bill S. 1315.

Hon. FRED R. HARRIS,
U.S. Senate,
Washington, D.C.

DEAR SENATOR HARRIS: In regard to the Bill introduced by you and certain of your associates regarding the protection of ocean mammals from being harassed and slaughtered. I must tell you that we are in complete agreement with the obvious intentions of your efforts.

Unless some controls are imposed, the future of our wonderful ocean mammals is under severe threat. I actually believe, however, that the draftors of the Bill completely overlooked the "oceanarium" industry. There are a number of profit-making institutions throughout the country who in no way intend to slaughter or harrass any of the ocean mammals mentioned in your Bill. Quite the opposite is true. Organizations such as ourselves, Marineland of Flordia, Miami Seaquarium, Sea World at San Diego, Marine World at Redwood City, California, Sea Life Park in Hawaii, Aquarium at Niagara Falls, New York, and a number of other fine establishments, are all tax-paying entities.

While total taxes paid are hard to determine for the group as a whole, it definitely adds up to millions of dollars—counting Federal, State, and local taxes of various kinds. Total employment is in the thousands, overall.

In our particular case, and I am sure it is true of the other tax-paying entities, we operate under strict control of the California Fish and Game Department as well a sthe Federal Fish and Wildlife Commission. Our doors are open to them at all times. In addition to this, we have cooperated with a number of governmental groups in various forms of research, using our facilities the like of which are not readily available to them.

To sum up, the intent of your proposed bill is most commendable. The purpose of my letter is to draw to your attention that there are tax-paying organizations who contribute to the knowledge and education of the public through he exhibiion of ocean mammals and I would hope tha tyour Bill could be amended—particularly Section 204 of Title II so that the members of our industry would not be prohibited from continuing in our work and that the control of our activities should remain with the various State commissions such as our own California Fish and Game.

Should you or any of your colleagues have the opportunity to be in our area, I would be delighted to host you on a tour of Marineland of the Pacific so that you might observe our activities and, especially, meet our scientific community which is engaged in the veterinarian care of our ocean mammal residents.

Sincerely,

WILLIAM F. MONAHAN.

SEPTEMBER 15, 1971.

To: William F. Monahan.
From: John H. Prescott.
Reference: Marine Mammal Legislation.

The impact of the current bills (HR 10420, HR 6554, S 1315, and others) on the commercial activities of such places as Marineland of the Pacific is quite foreboding. In reviewing three of these bills, we have discovered that they lack provisions for the operation of organizations like Marineland of the Pacific which are profit making corporations. The recent press and television campaigns, which support banning of the taking of marine mammals, has been very strong and in many cases, I believe, are based on emotion rather than fact.

The exclusion of commercial organizations from those other groups who are exempt from the provisions of these bills creates a paradox. If it were not for the commercial oceanariums, our knowledge of these small cetaceans would still be rudimentary. Scientific investigation at research institutions would never have gotten underway and public interest and concern for these very animals would probably be virtually non-existent. The adoption of these highly restrictive and strictly protective legislative bills are not even consistent with many current trends towards wildlife management, conservation, and efficient utilization of our natural resources.

The utilization of small dolphins and whales at Marineland probably represents one of the most efficient uses of this natural resource. It is only at places like Marineland of the Pacific that the general public can come in contact with these animals and learn more about their habits and values. Marineland is only one of several recreation oriented marine parks that in the aggregate have a visitation of nearly 20 million persons annually. The utilization of dolphins, small whales, and many species of seals in these recreation parks is not inconsistent with the policies of conservation and management of a natural resource. As with any zoological park operation, it is to our obvious benefit to capture, transport, and maintain these wild species under the best conditions as they basically create employment for many people and are the basis of our continuing success.

Marineland of the Pacific and Marineland of Florida are rather unique corporations. Although our primary business involves public recreation, the Marineland environment affords the staff and visiting scientists unique opportunities to study marine life. At Marineland of the Pacific, the staff has been involved in research programs of its own in addition to assisting visiting scientists. In addition to our staff assignments, Marineland has operated a research laboratory which is available to any qualified investigator who makes application and has approval from Marineland to conduct research at this facility.

Some of the programs that have been conducted at Marineland of the Pacific are:

1. Basic research by the staff. Whenever possible, applied aquarium problems are integrated to include aspects of research of general interest and potential publication. In many respects, the Marineland environment affords the staff unique opportunities to study marine life in conjunction with potential displays. Some of these combined programs of direct involvement are:

Transportation of fishes and other marine animals
Behavior of fishes
Functions of the gas bladder, its physiology and associated behavior
Echo-ranging in dolphins
Disease and health problems in marine mammals
Embryological studies in sharks
Etiology and pathology of fish diseases

Not all basic research programs fall in these categories and available time is utilized for personal programs.

2. Visiting scientists' research programs:

University of California, Santa Barbara, Dr. D. Davenport; symbiotic relations of the clownfish *Amphiprion* and the anemone *Stoichactis.*

California Department of Fish & Game, Staff Marine Resources; fish tagging evaluation.

Scripps Institution of Oceanography and the Institute of Marine Resources, Dr. Wheeler North, kelp investigation program.

U.C.L.A., Dept. of Zoology graduate student projects of Drs. B. W. Walker, R. Boolootian and K. S. Norris.

California Department of Fish & Game, Mr. Jack Carlisle, red tide investigations.

U.C.L.A., School of Medicine, Dr. Wm. Hildemann, research in immunobiology of lower vertebrates.

California Institute of Technology, Dr. Wheeler North and staff, study of pollution on near shore ecology.

Occidental College, Dr. J. Stevens, ecological investigations of blenniid fishes.

Naval Undersea Research & Development Center, W. E. Evans, dolphin tagging and sonar investigations.

U.S. Fish and Wildlife Service, Dr. John Magnuson, tuna behavior and spawning.

Los Angeles County Museum, Drs. S. Applegate and M. Urist, calcium fixation and metabolism in sharks.

Dr. D. Caldwell, phonation in dolphins and taxonomic status of the priacanthid fish *Pseudopriacanthus serrula.*

The results of these investigations have been published in such scientific journals as "Copeia," University of California publications in Zoology, "Journal of Behavior", Department of Fish & Game Quarterly, Zoologica, etc.

JOHN.

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18 EAST CAVEN STREET,
Indianapolis, Ind.

DEAR REPRESENTATIVE GARMATZ: Please include my letter in the record of your hearing on Rep. Glenn Anderson's H.R. 9668, which would prohibit the poisoning of animals and birds on the public lands of the United States.

I had thought that the U.S., the most humane and truly sporting of countries, had such a law already. I was shocked and disgusted to think of the agony our wildlife had to endure. Humans can protest cruelty, but animals need us to plead for them. An animal, even more than a person, deserves a quick, dignified death. Also, some animals may eat poison not intended for them, and it becomes a wholesale slaughter instead of a controlled program. The bill H.R. 9668 would substitute the Kansas-Missouri predator control methods, which would be just as effective.

I urge the Committee on Merchant Marine and Fisheries, and all committees interested in our environment, to take quick favorable action, and pass H.R. 9668.

Sincerely,

JUDITH A. GAITHER.

1363 Poppy Way,
San Jose, Calif., August 5, 1971.

Representative Don Edwards,
House Office Building,
Washington, D.C.

Dear Sir: I want to thank you for co-sponsoring the Harris-Pryor Bill (S-1315 & H.R.-6558). The brutality of killing seals for their skins and fur when cotton and wool will do instead, is beyond my scope of imagination.

Please help to build a better world with less bloodshed. The economics are not worth the brutality to our soul and spirit. The American people don't wish to be degraded by contributing to senseless slaughter.

I request that this statement be printed in the record of the hearings.

Thank you.

Donna Dittrich, R.N.

MISCELLANEOUS MATERIALS ON POLAR BEARS

(From IUCN Red Data Book)

REVISED CLASSIFICATION OF RARE AND ENDANGERED FORMS, 1969

Category 1. Endangered. In immediate danger of extinction; continued survival unlikely without the implementation of special protective measures.

Category 2. Rare. Not under immediate threat of extinction, but occurring in such small numbers and/or in such a restricted or specialized habitat that it could quickly disappear. Requires careful watching. [*Note:* this does not include the large number of forms which, for the reasons given in the Introduction, have been placed on the Supplementary List.]

Category 3. Depleted. Although still occurring in numbers adequate for survival, the species has been heavily depleted and continues to decline at a rate which gives cause for serious concern.

Category 4. Indeterminate. Apparently in danger, but insufficient data currently available on which to base a reliable assessment of states. Needs further study.

Star listing: * * * Critically endangered.

Symbols:

(a) Full species.
(b) Subspecies.
E. Exotic, introduced or captive populations believed more numerous than indigenous stock.
M. Under active management in a national park or other reserve.
P. Legally protected, at least in some parts of its range.
R. Included because of its restricted range.
S. Secrecy still desirable.
T. Subject to substantial export trade.

Pink sheets are used for critically endangered forms (* * *).

Green sheets denote forms that were formerly endangered but have since recovered to the extent that their names have been withdrawn from the Red Data Book. These are not listed in the Index.

Polar Bear

Polar Bear: *Thalarctos maritimus* (Phipps, 1774): Order Carnivora, Family Ursidae.

Distinguishing characteristics: "One of the largest bears and most carnivorous. Males average 7′–8′, maximum 9′, height at shoulders up to 5′, weight average 900 lbs., maximum 1,600 lb. Stump of tail only. Female average weight 700 lb. Coat a uniform white with yellow tinge. Head long, with "roman" nose, long neck, powerful limbs and broad feet with hairy soles." (1:151)

Present distribution: May occur seasonally in the vicinity of the northern and northeastern coasts of Alaska. "In Canada a quadrangle (63°N–75°N and 60°W–95°W) encloses the most productive polar bear areas." The east coast and particularly the fiorded northeastern coast of Greenland are "especially attractive to the animals, largely because seals are so abundant there." "Bears are abundant also in Svalbard, a group of islands including West Spitzbergen." "The best denning areas in the Soviet Union occur chiefly on the archipelagos north of the mainland coast. Those areas include Franz Josef Land, Novaya Zemalya, Severnaya, Zemlya, the New Siberian Islands, and Wrangel Island." "Occasionally, in Canada, Alaska and the Soviet Union, polar bears have been known to penetrate 100 miles or more inland from the mainland coasts. They rarely appear in the zone of permanent north polar ice, but have been recorded as far north as 88°." (2:5–6).

Former distribution: "The polar bear's range has shown signs of significant contraction since the 1930's at least." (2:5)

Status: "Generally, it seems that Alaska, Canada, and perhaps Norway possess the 'healthiest' white bear populations. Significant depletions, attributed to overhunting have occurred in Greenland and the Soviet Arctic since about the 1930's. Still, environmental and ecological conditions may exert an unknown but powerful influence where such depletions take place. Spärck's figures clearly indicate a decline in polar bear stock which is most pronounced in the western and southeastern coasts of Greenland." (2:10) As a result of protective measures taken by the Soviet authorities, the bear population has remained stable since 1960 and may have increased slightly. (3:318)

Estimated numbers: Uspensky estimates the total world population to be about 5,000 to 10,000. (3:319) Harington considers the total to be "well over 10,000", including 6,000–7,000 in the Canadian Arctic. "Probably the total annual kill of polar bears now approximates 1,300." (2:10)

Breeding rate in wild: Denning commences about October and the young are born in late November or early December. Twin births are usual. "Mating usually occurs in April . . . The gestation period averages about eight months, and although there is no scientific proof of delayed implantation in polar bears, there is good reason to believe that it exists . . . Females become sexually mature when they are approximately three years old, males when they are four. Adult females bring forth cubs the third winter after a previous birth, or sooner if her cubs die or are lost. This accounts for the rather slow rate at which depleted populations may revive. It has been estimated that white bears remain fertile to 25 years of age." (2:7–8)

Reasons for decline: "Intensive hunting of polar bears began in the early 17th century when ships started piercing the core of their range. . . . When the sealing industry began to replace the impoverished whaling industry, a more deadly pressure was exerted on the ice bears, particularly in the waters east of Spitzbergen and Franz Josef Land, the Greenland Sea and the Canadian Eastern Arctic. In 1924 Norwegian seal hunters alone killed 714 polar bears. The later-developing fur trade was an additional stimulus to exploitation of this natural resource." (2:5) Uspensky states that the range of the species has been reduced, probably as a result of the onset of milder climatic conditions in the Arctic. Moreover, numbers of humans and domestic livestock in the Arctic have increased in recent years and this has resulted in a higher incidence of disease. (5)

Protective measures already taken: "In Canada, only Eskimos, Indians and the few holders of general hunting licences may legally hunt" the species. In Manitoba, Ontario, Quebec and the Northwest Territories sportsmen are not permitted to hunt them. On the northeast coast of Greenland hunting is prohibited between June 1st and October 31st. In the Norwegian Arctic the species is protected on King Karls Land and in adjacent territorial waters, and there are limitations on capture of cubs. "Otherwise polar bears can be hunted throughout the year, in any part of the archipelago. There is a bag limit of one bear each to foreigners hunting in the Norwegian Arctic." "The Canadian Wildlife Service initiated a five-year polar bear project in 1961. The objectives are to review the effectiveness of protective legislation and to integrate, verify and add to the scattered and often fragmentary information existing on polar bears." In the Soviet Union S. M. Uspensky is currently undertaking a study of the animal on Wrangel Island. (2:9–11) "In 1956 the Russian parliament adopted a special decree . . . which imposed a ban on shooting polar bears in the Soviet Union. . . . This law was introduced following the recommendation of the 1955 (IUCN) General Assembly that the Arctic countries should take measures to protect the polar bear." Cubs may not be caught in the Soviet Arctic except under special licence. In 1960 a reserve was established on Wrangel Island, one of the most important denning areas in the Soviet Arctic. (3:318)

Measures proposed: "There is a definite need for an internationally coordinated programme of marking polar bears, once an effective technique is developed. This would indicate how much of an international problem polar bear management is. . . . Appropriate international meetings on polar bear conservation should be initiated when and if the evidence shows them to be necessary. Meanwhile, until we know enough about numbers and movements to begin really enlightened management programmes, each nation concerned should make every effort to protect adequately this valuable and impressive wildlife species." (2:11) An international agreement restricting the hunting of polar bears is urgently required as well as adequate local restrictions. (5)

Number in captivity: The polar bear is one of the most commonly exhibited bears in captivity, few of even the minor zoos not showing it. I would say that there are no less than 1,000 (mainly of the nominate race) in zoos, perhaps even more. The average zoo of any size usually has at least a trio or more: some, like East Berlin, have a dozen. (4)

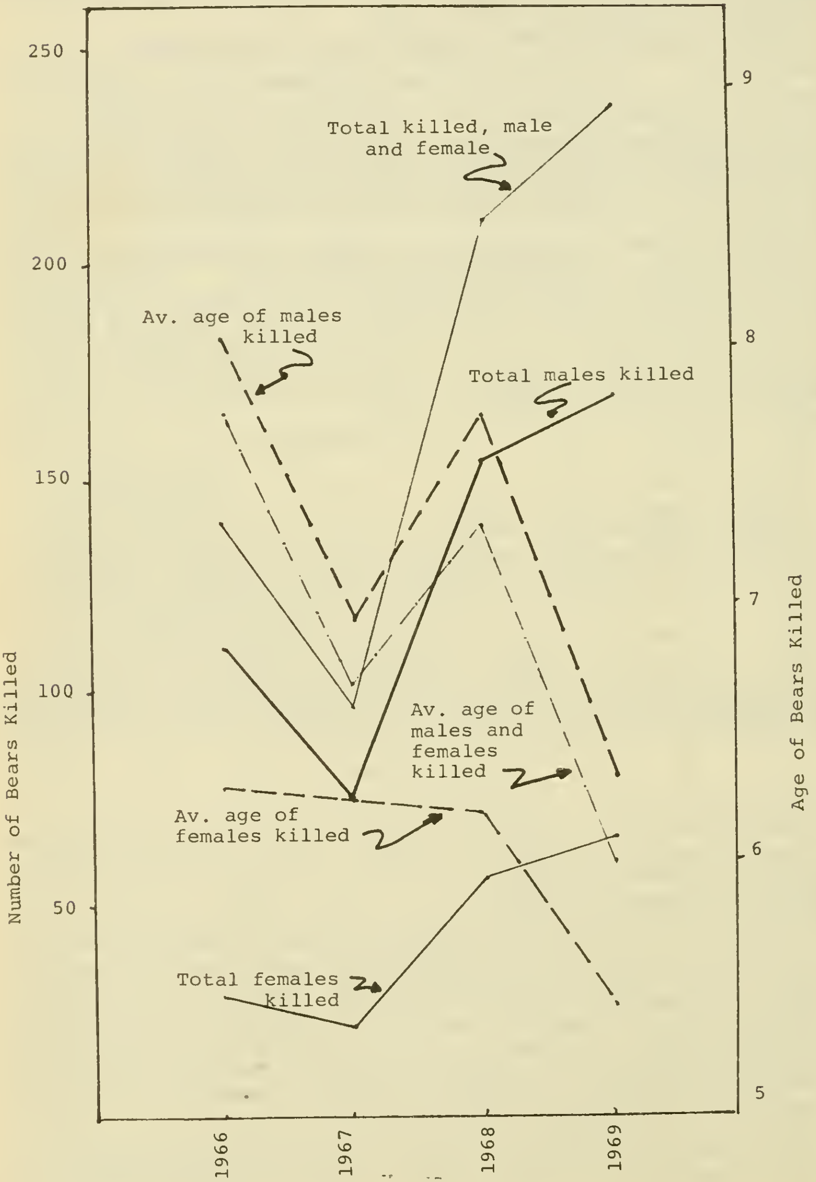
Breeding potential in captivity: Breeds readily in zoos. (4)

References:

1. Burton, 1962.
2. Harington, 1964.
3. Uspensky, 1965.
4. Marvin L. Jones *in litt.* 13/4/64.
5. G. P. Dementiev *in litt.* —/4/65.

Thalarctos maritimus; MA/9 HALA/MAR.

POLAR BEAR KILL IN ALASKA, 1966-1969 *



* Source - Paper submitted [illegible]
at 1970 IUCN Conference, by State of Alaska

TABLE 12.—AVERAGE AGE BASED ON TOOTH CEMENTUM LAYERING OF POLAR BEARS IN HUNTER HARVEST, 1966–69

	Male			Female	
	Airplane				
	Nonresident	Resident	Ground	Airplane	Ground
Chukchi Sea:					
1966	9.1(64)	7.0(13)		7.2(14)	3.0(1)
1967	7.0(39)	7.0(7)		6.0(12)	
1968	8.2(76)	5.8(21)		8.3(8)	4.0(3)
1969	6.2(106)	4.7(10)		5.4(27)	4.5(2)
Beaufort Sea:					
1966	10.1(16)	7.2(13)	10.6(4)	6.6(8)	5.0(6)
1967	7.7(17)	6.0(10)	4.5(2)	7.0(8)	5.0(2)
1968	8.1(21)	6.4(7)	5.6(28)	5.8(22)	6.2(23)
1969	7.4(30)	6.1(9)	5.9(14)	5.4(31)	5.2(6)

Note: Numbers in parentheses are numbers in sample.

DERIVATIVE TABLE

[Based on the foregoing figures]

	Average all males	Average all females	Combined average
1966	8.1(110)	6.4(29)	7.7(139)
1967	6.9(75)	6.3(22)	6.6(97)
1968	7.7(153)	6.2(56)	7.3(209)
1969	6.3(169)	5.4(66)	6.0(235)

Source: "Polar Bear Research and Conservation in Alaska, 1968–69" by Jack W. Lentfer, Alaska Department of Fish and Game Barrow, Alaska, included in "Proceedings of the 2d Working Meeting of Polar Bear Specialists," organized by IUCN at Morges Switzerland, February 2–4, 1970, IUCN Supplementary Paper No. 29.

POLAR BEAR KILL IN ALASKA, 1961–70

Year	Males	Females	Total
1961	110	42	152
1962	139	62	201
1963	149	40	189
1964	195	58	253
1965	225	71	296
1966	294	105	399
1967	153	38	191
1968	260	91	351
1969	214	85	298
1970	234	78	312
1971 [1]			[1] 177

[1] In his affidavit, Mr. Brooks indicated that the 1971 data was incomplete as of June 2, but the total kill was not expected to exceed 200.

Source: Affidavit of James Brooks, U.S.D.C., D.C. Civ. Case No. 1081–71, p. 8.

THE POLAR BEAR

RESEARCH ACTIVITY OF THE BUREAU OF SPORT FISHERIES AND WILDLIFE

Background: The great white bear of the Arctic, the polar bear, has long been known to mankind. Polar bears, Eskimos, and igloos together commonly are associated with the frozen reaches of the Far North. This bear has been exploited, mainly for food and fur, by the aboriginal peoples with whom it coexists geographically. This exploitation, however, appears never to have threatened the continued existence of the species.

In recent years, notably since World War II, the polar bear has come to be much sought as a trophy by non-native hunters. The utility of small aircraft for hunting this bear far out on the Arctic ice floes, as well as increased affluence, has done much to stimulate this interest. The native peoples, concurrently, have found a profitable market for skins for trophy purposes. Increased exploitation has resulted, which in turn has aroused a concern for the welfare of the species.

It quickly became necessary to consider the application of conservation practices directed to assuring the future of the species. Information basic to the achievement of this objective, however, was not available. For example, the size and structure of the population were unknown. So were the extent of the animals' travels, their use of food materials, and the duration of their reproductive life. These shortcomings in basic information emphasized the need for an increased effort in pertinent research.

RESEARCH ACTIVITY

Objectives:

1. Ascertainment of the number of polar bears using American waters;
2. Age and sex composition of this population;
3. Extent and pattern of travels;
4. Population productivity;
5. Extent of denning by pregnant sows on the American Arctic ice pack and along the Alaskan coast;
6. Develop aerial methods for enumerating the population.

Methods: In general, standardized methods are used in pursuing the research objectives. These include the immobilization of the bears with an appropriate drug so that they may be handled for marking, weighing, and extraction of one of the vestigial premolar teeth. The marking, of course, individualizes an animal, and the tooth is used to ascertain age.

Infra-red scanning equipment was tested for utility for aerial censusing. This is a new development, which seems to offer some promise, but which also is expensive.

PROGRESS

Early work: In recognition of the need for reliable information upon which to base a management program, personnel of the Bureau of Sport Fisheries and Wildlife published in 1959 (Trans. 24th North American Wildlife Conference) a preliminary study concerning the status and management of the polar bear. This study showed the known bag of this species for Alaska, whose territorial waters encompass the American segment of the circumpolar range of the species, to be 206 bears in 1957 and 128 for 1958. It also stressed the need for legislation providing for the control of American nationals (polar bear hunters) on the high seas.

Later, in 1965, the Bureau of Sport Fisheries and Wildlife convened the first international meeting devoted to polar bear conservation. Represented at this meeting, held at Fairbanks, Alaska, was a delegation from each of the nations fronting on the north polar basin, namely, Canada, Denmark, Norway and the Soviet Union besides the United States.

Based upon the combined effort of this Bureau and the State of Alaska, it now was possible to increase the definitiveness of information concerning this species. It was shown that this bear does not regularly come ashore in Alaska, which precludes regular denning and foraging in this land; that this species no longer occurred on St. Matthew Island as it did in 1800; that the bag of 1965 of 292 bears contributed about $450,000 to Alaskan economy; that the bag from 1960 to 1965 averaged about 75 percent males; that the average litter size in March and April since 1958 for cubs of-the-year was 1.86 individuals, and for cubs older than one year was 1.58 animals.

With the engagement in December 1967 of a wildlife biologist intimately acquainted with Alaskan conditions, this Bureau began its first specialized study of the polar bear. This biologist and another from the Alaska Department of Fish and Game work in a complementary manner, the Bureau biologist centering his attention on the bears of the Chukchi Sea region off the west coast of Alaska, and the Department of Fish and Game biologist centering his attention on the bears of the Beaufort Sea region off the north coast of Alaska. Their work, it should be noted, is being carried out cooperatively with wildlife biologists representing Canada, Denmark, Norway, and the Soviet Union, which in turn is being coordinated by the International Union for the Conservation of Nature and Natural Resources headquartered at Morges, Switzerland.

This group has found that the Arctic-wide harvest of polar bears is approximately 1,250 animals annually. In 1969, the harvest by nation included 128 by Greenland (Denmark), 346 by Norway, 407 by Canada, 298 by the United States, and a few by the Soviet Union for zoos or scientific study. The Soviet Union has otherwise had a closed season on this species since 1956. The bag in Alaska is controlled by that State which restricts the number of permits issued to 300. It is generally illegal to bag cubs or females with cubs.

Field work by the American biologists suggests that the bears taken by hunters in the Chukchi Sea region probably come from Wrangel Island as a natal area, and those taken in the Beaufort Sea region probably have as their natal area islands in the western Canadian seas.

Their work shows also that the average age of the males bagged is decreasing since 1966. This means that younger animals are making up more and more of the bag, but not necessarily that the population is being jeopardardized. This is a trend, however, which needs to be closely watched with a view to altering the hunting regulations in favor of this bear when the need is indicated.

Reaching a reliable estimate of the total regional population of this bear remains elusive. The sparce distribution of the individuals, the shortness of the season for field work, and the frequency of violent weather all contribute to this difficulty. The Bureau's biologist recently tested an infra-red scanning system for making a count of polar bears. Appliction of the method is expensive and the result so far is not entirely satisfactory. It is believed, however, that the system is promising.

Increased funding would facilitate the more rapid cumulation of data basic to good management.

State of Alaska,
Department of Fish and Game,
Juneau, July 29, 1971.

Mr. Berry Kowalski,
Office of Endangered Species, Bureau of Sport Fisheries and Wildlife,
Washington, D.C.

Dear Mr. Kowalski: In regard to your inquiry regarding Polar Bear enforcement in Alaska, the Protection Division accelerated efforts in this area during 1970–71.

This past spring 7 officers were working in the field during all or part of polar bear season. In addition, a number of biologists, who are also deputized to enforce our fish and game code, were also actively involved in the field activity.

Additionally, investigations were initiated at taxidermy shops in five western states, regarding both brown and polar bear believed to have been taken in Alaska or adjacent to our coast. Between January 1970 nd March 1971, 700 investigations involving mainly polar and brown bear were initiated. Many of these trophies were found to be legal, a number to be illegal and additional information is being collected on the remainder of the cases.

If you wish additional or more specific data, please let us know.

Sincerely yours,

C. A. Weberg,
Director, Division of Protection.

State of Alaska,
Department of Fish and Game,
Juneau, July 27, 1971.

Mr. Berry Kowalski,
Office of Endangered Species, Bureau of Sport Fisheries and Wildlife,
Washington, D.C.

Dear Mr. Kowalski: I am enclosing a copy of the Commissioner's letter to the Area Director of the Bureau of Sport Fisheries and Wildlife, plus a copy of the Game Division's management policy on polar bear.

The Division management policy is not finalized at this time, accordingly, some changes may be made, but such changes would not alter it greatly.

This Division has gone on record that we will suggest and propose the elimination of aircraft hunting of polar bear for the hunting season of 1973, not because we feel it is required to protect the species, but rather because of public sentiment on methods of hunting these animals.

Some time ago we set a limit of three hundred polar bears that might be harvested and this limit has, for the most part, been the upper limit of the harvest. Our regulations have been gradually more restrictive in order to hold this limit. The regulation for the present year 1971 specified a total of 300 permits authorized to hunt and the harvest was 204 bears, including 8 that were illegally taken.

The Protection Division has prepared a summary for you and I trust this information will be of assistance.

Sincerely,

Don McKnight,
Acting Director, Division of Game.

Enclosure.

July 13, 1971.

Mr. Gordon W. Watson,
Area Director, Bureau of Sports Fisheries and Wildlife,
Anchorage, Alaska.

Dear Gordon: I was aware of the complaint filed by the Friends of Animals seeking a declaration of a federal court that the polar bear is threatened with extinction and a court order that it be placed on the endangered species list. The Alaska Department of Fish and Game holds to the view that placing the polar bear on the endangered species list at the present time, or within the foreseeable future, either by way of a court order or upon the demand of an ill informed special interest group would be depriving the citizens of the United States of a valuable right unnecessarily.

By any reasonable standard, the management program carried out in Alaska in relation to polar bears has been a successful one. Harvest data anlyses, which are the basis for polar bear hunting regulations in Alaska, do not indicate that over exploitation of the population off the Alaskan coast is now in prospect or has occurred in the past. From a biological standpoint, there are no reasons to suggest that complete curtailment or significant reduction in the polar bear harvest level is necessary.

It is a well known fact that the Alaska Board of Fish and Game, which is the regulatory agency responsible for the management of fish and game resources, does consider and respond to prevailing socio-economic conditions as well as to sound biological data. In response to public sentiment against the use of aircraft in hunting polar bear, the Department intends to present to the Board a comprehensive analysis of the aircraft hunting situation from Alaska, for their study and consideration. It should be pointed out that the curtailment of aircraft hunting will eliminate a major portion of the polar bear harvest, leaving only the minimal take represented by those engaged in hunting bears on foot. This examination of the situation could possibly make the present suit superfluous and certainly demonstrates the concern shown this valuable resource. It is felt that the management of game resources is a matter which should be left to the state most concerned under the guidance of experts who are intimately familiar with the habitat and the actual condition of the specie.

It is evident from the complaint that Friends of Animals is not aware of the strict regulatory controls the Board of Fish and Game has applied to polar bear hunting in Alaska. Apparently too, they are not aware of the extensive polar bear harvest statistics which are compiled by the Alaska Department of Fish and Game. Nor, do they seem to have an understanding of polar bear habitat and its actual location relative to the gas and oil development at Prudhoe Bay. The details of seasons, bag limits, permit requirements, sealing requirements and any other information the Department of Fish and Game may require regarding polar bear harvest need not be discussed here. However, this information is readily available should it be required.

The court order or injunction against all future polar bear research also does not appear to be warranted. A responsible scientifically sound research program similar to the cooperative efforts of our Department and the Bureau of Sports Fisheries and Wildlife is currently conducting, coordinated with the efforts of other arctic polar bear nations, is, in our opinion, an absolute perequiste for understanding and insuring the continued well being of the arctic polar bear population.

Again, information pertaining to polar bear harvests and our research programs will be made available to you upon request.

Sincerely yours,

Wallace H. Noerenberg,
Commissioner.

MEMORANDUM

STATE OF ALASKA, *July 1, 1971.*

To: Reviewers, Polar Bear Management Policy.
From: Jack W. Lentfer, Game Biologist, Barrow.
Subject: Polar Bear Management Policy.

The Species Management Policy for polar bears suggests some changes from present management practices. This memo and the accompanying extract from a Department statement prepared for the Board are to provide additional information when considering these changes. I will discuss changes under three categories:

ELIMINATION OF AIRCRAFT HUNTING AND ALTERNATIVES

A basic objective of the Management Policy is that polar bear hunting should furnish a high-quality. esthetically acceptable type of hunting. I do not believe the Department should classify a type of hunting whereby planes are used to track bears and then drive them to hunters as high-quality recreation. As long as hunting with aircraft is permitted. I do not believe that hunting methods will change. Flying is specialized enough that only a relatively few pilot-guides want to do it. The present method of hunting is so profitable, based on fees which can be obtained in relation to investment in equipment, effort expended, and high success ratio, that even with restrictions on use of aircraft, present pilot-guides would probably not change their methods. The difficulties of monitoring activities of airborne hunters on the high seas also preclude changes in hunting methods. If it were possible to control activities of airplane hunters to some degree, the cost and effort required by the Department to do so in relation to the type of hunting which would thereby be perpetuated, should be considered.

Other methods of hunting which would more closely fit the primary objective of quality recreation are proposed. The most desirable would be development of ground hunting, either by dogteam or snow machine. A few Eskimos at Point Hope and Wainwright are capable of providing guided ground hunts now, and more would probably be able to if there were more of a demand. Hunting could start in the late fall. after pregnant females that were going to den along the coast had done so. and continue through the winter and spring. Although hunting pressure, degree of success, and the total harvest would be less than with airplane hunting. there would be a potential for a substantial harvest. The average annual harvest for 1925–53 as taken from reports of the Alaska Game Commission. was 117. This was before aircraft were used to any extent, and most animals were taken by Eskimos using dogteams. Hunters using aircraft today undoubtedly take a certain number of bears that would be available to shore based hunters if aircraft were not used. With elimination of aircraft hunting and development of ground hunting. it is possible that harvests by ground hunters in the magnitude of the 1925–53 era would occur.

Hunting from boats is another alternative to hunting with use of aircraft. I believe ground hunting is somewhat preferable to boat hunting from the standpoint of quality and esthetics. but I believe boat hunting is decidedly better than airplane hunting. I would recommend that the season remain open in the summer. so that if a person wanted to hunt by boat he might be able to do so by making arrangements with one of the few persons on the north Alaska coast with a boat capable of getting into the edge of the ice pack in the summer. I would not recommend that the Department encourage commercial operators to invest in equipment to provide boat hunting on a large scale. If it appears that this might occur, I believe the Department should reconsider boat hunting and perhaps modify the Species Management Policy based on the amount of hunting and harvest provided by hunting along the coast from the ground. If ground hunting provides a substantial harvest and associated recreation, it might not be desirable to have large scale boat hunting develop.

A question sometimes arises as to the quality of hides from bears taken in the summer. Quality is inferior to winter hides. However, they apparently are acceptable as trophies as evidenced by the success of boat hunting in Spitsbergen waters in the summer.

SALE OF SKINS

The sale of polar bear skins taken with the aid of aircraft was stopped several years ago. The sale of skins taken without the aid of aircraft was allowed to continue on the basis that this was a quasi-subsistence activity by which money obtained from skins could be used by Arctic coast residents to purchase necessities. It is now proposed that sale of skins taken without the aid of aircraft also be stopped. The kill by coastal residents varies so much by location, year, and individual, that it is not a dependable source of income for any one group. It is believed that if a welfare measure similar to this is needed it should be directly to the group needing it rather than to those who are skilled or fortunate enough to kill polar bears. Also, as native groups become more acculturated, an attempt should be made to eliminate double standards in game regulations. A single standard for selling of skins, i.e., no selling, could be put into effect now.

If ground hunting develops, prohibiting sale of all skins would eliminate the possibility of extensive legal hunting for commercial sale of skins, an activity which is not compatible with the primary objective of managing for high-quality recreation. A loophole would also be plugged whereby a non-resident might have a resident claim a skin so that it could be sold.

SUBSISTENCE HUNTING

Some of the factors affecting sale of skins also apply to subsistence hunting. The primary purpose for hunting polar bears by Arctic coast residents in recent years has changed from a desire to obtain meat to a desire to obtain skins for sale. This is because of an increase in the value of skins and the increased importance of wage-earning and welfare in the economy. Food stamps are the most recent measure which is decreasing subsistence hunting.

As has been stated, it is proposed that hunting for skins not be considered an acceptable use. However, it should be recognized that true subsistence hunting is a legitimate minor use. This is so stated in the Policy Statement. This use should be restricted by bag limits.

Proposed Polar Bear Management Policy for Alaska

(By Jack W. Lentfer)

The polar bear (*Ursus maritimus* Phipps) is an important and unique game species which, in some parts of its range, is under management jurisdiction of the State of Alaska. People throughout the world have an interest in this bear because of its uniqueness as a large carnivore sparsely distributed in a limited and largely unknown habitat. Also, the national as well as international aspects of polar bear management have caused considerable interest. Many bears are born on land controlled by one of the various nations surrounding the polar basin and spend much of their lives in international waters, sometimes moving from one national sector of the high seas to another. A comprehensive polar bear management policy must recognize international, national, and state interests from ecological, recreational, economic, and scientific standpoints. Such a policy must incorporate definite goals and guidelines with sufficient flexibility to adjust to changing needs and conditions. Sound biological data and supporting information skillfully used are required to implement a management program that will attain the goals of a progressive management policy which insures perpetuation of this species. The proposed policy includes a General Policy Statement and Specific Management Policies.

GENERAL POLICY STATEMENT

The Alaska Department of Fish and Game recognizes the Constitutional mandate of the State of Alaska to manage polar bears on the sustained yield principle in the best interests of the resource and of the people, and also recognizes that national and international interests must be considered.

The Department recognizes that suitable habitat must be maintained for polar bears and advocates that plans for Arctic coastal and marine development consider the effects of such development on polar bear habitat and the biological components of that habitat.

The Department recognizes that different uses of polar bears exist and that other uses may be proposed. These uses and their priorities are considered under Specific Management Policies.

SPECIFIC MANAGEMENT POLICIES

Recreational Uses

In Alaska, hunting to obtain skins for trophies is presently the most important consumptive use of polar bears. One of the goals of management will be to provide maximum opportunity for recreational hunting of high esthetic quality. Various management techniques as follows will be used to achieve this objective.

1. Seasons will be long to provide hunting opportunity to a maximum number of persons and to keep concentrations of hunters at a minimum.
2. Cubs and females with cubs will continue to be protected.
3. Hunting will be from the ground, ice or water only, and use of aircraft to assist in taking bears will not be allowed. There are several reasons for eliminating the use of aircraft. Tracking bears and then driving them to hunters by plane, as is commonly done when aircraft are used for hunting, is esthetically unacceptable as a hunting method. Also, the demand for polar bear skins is so great, that when aircraft hunting is allowed, it is profitable for aircraft operators to kill bears for commercial sale of skins. This illegal hunting, when done in conjunction with a legitimate use of aircraft for hunting, is extremely difficult and perhaps impossible to control. Polar bears taken in this manner are not accounted for in harvest statistics, and the number taken could be large enough to substantially reduce the bear population. Public pressure against airplane hunting could weaken local management control to the disadvantage of coastal Alaskan residents. It would be unfortunate if Alaska lost control of bears along its coast.

Observation and photography of polar bears is a limited recreational use which could become more popular in the future. The Department will encourage this use and provide the public with information relating to it.

Economic Use

Although residents along Alaska's coast depend on wildlife as a major source of food, polar bears are taken so infrequently that they are a minor subsistence item. The Department's policy will be to regard true subsistence hunting of polar bears a legitimate resource use of minor importance.

The Department does not consider the harvest of polar bears for the sale of hides a valid or wise use and will accordingly oppose and recommend against such hunting.

The Department believes that economic benefit could accrue to coastal villages by sport hunters employing residents of the villages as guides for polar bear hunting and will encourage such activity.

Scientific and Educational Uses

The Department recognizes the continuing need for studies of polar bear biology and ecology and realizes that some of these studies may best be conducted by cooperating agencies and/or individuals. The Department will request descriptions of proposed studies in order to keep abreast of polar bear research within the State and to insure that the best interests of the people of the State are being considered.

The Deparment recognizes that the general public has an interest in polar bear life history and management, and will prepare informational articles for public distribution. This interest and the concurrent demand for documentary articles and films prepared by professional writers and photographers will be encouraged to the extent that cooperation will not interfere with Department programs, and provided that articles and films can be reviewed and edited by the Department before release to the public.

The Department may issue permits for the capture, holding, and export of wild polar bears but only for the purposes of scientific study and public education and enjoyment.

EXCERPT FROM STATEMENT PREPARED FOR BOARD OF FISH AND GAME, FEBRUARY 1971

The Department would also like to inform the Board and the public that it favors elimination of aircraft hunting for polar bears after 1972 and will make specific recommendations prior to the appropriate Board meeting. The rationale for elimination of aircraft hunting follows.

Polar bears are large carnivores sparsely distributed in a limited habitat. They should be managed for high quality recreation and not for commercial interests. Airplane hunting does not do this. Most bears are taken with the assistance of a relatively few pilot-guides, many of whose only interest is monetary gain, sometimes without regard for regulations. Hunting methods are considered esthetically displeasing and unethical by a large portion of the public both hunting and non-hunting. Hunting consists of tracking bears on the sea ice with two planes. When a bear is located, the plane with the hunter lands, and the other plane drives the bear to the hunter. Guides skin the bear, meat is left on the ice, and planes return to their hunting base with the skin and hunter. Hunters may be partly satisfied in that they åre successful in killing a bear and having a skin to take home. Many are dissatisfied with the way planes are used to track and drive bears and the "get-it-over-with" aspects of the hunt. In many cases the guide's main interest is getting a bear as soon as possible to keep flying time to a minimum and to be able to take as many hunters out as possible. Often a hunter takes a bear the first day he is out and then obtains little or no service from his guide for whatever length of time he may remain in the hunting village. Once hunters have contracted with an airplane guide, they have little or no control over the method of hunting. Flying over the ice is specialized enough that the average private pilot does not want to do it, and state residents as well as non-residents contract with guides. Thus, elimination of aircraft hunting would not in reality deprive Alaska residents of aircraft hunting on their own without the aid of guides.

Polar bears are an international resource. Most Alaska based aircraft hunting is done on the high seas. Many of the bears taken west of Alaska are probably born in Russia, and some bears taken north of Alaska may be born in Canada. Such an international resource requires a broader view than one of maximum sustained yield off the coasts of any one country. Russia is especially critical of Alaska airplane hunting. Biologists there state that although Russia has not allowed hunting since 1956, the bear population is not increasing because American and Norwegian hunters are taking bears on each side of the Russian arctic. (Russians have not presented data in English to demonstrate that this is happening, however.) Management agencies in other countries are critical of airplane hunting because it is over—commercialized, the method of hunting is esthetically displeasing, and there is a potential for overharvest, especially since it is difficult to control activities of airborne hunters on the high seas and in the arctic. (Incidentally, the other highly criticized method of harvesting, use of set-guns in Spitsbergen, was stopped by Norway effective September 1970.) The general public, as well as management agencies, is concerned about polar bears. People from many walks of life from many parts of the world consider polar bears an international resource and express opposition to airplane hunting because of esthethic considerations and concern for the species' welfare. The State by continuing to allow aircraft hunting could create an unfavorable image for itself, and national and international pressure could cause polar bear management responsibility to go to the Federal government or through a treaty to an international commission. It would be unfortunate if the State lost management jurisdiction of bears along its coast and if additional discord were created regarding State versus Federal jurisdiction of game species.

Another aspect related to over-commercialization is the desire by some guides to make as much money as possible from polar bear hunting without regard for regulations. As hunting pressure has increased, regulations have become more restrictive. The major control since 1967 on number of bears taken has been a limit on the number of hunts two guides working together could participate in. Some guides in exceeding this limit have deliberately changed partners in a manner that made it nearly impossible to obtain evidence that would allow convictions. This year for the first time a limited number of permits have been issued to hunters. Possibilities for getting around this method of harvest regulation have been explored ever since it was proposed. It appears that if airplane hunting is continued, violations will increase in future years as regulations become more restrictive because of increased hunting pressure. It is extremely difficult to enforce regulations because bears are hunted on the high seas, and hides can be hidden and kept frozen for long periods of time along the arctic coast. There is also hunting of bears by aircraft to obtain hides for sale rather than to provide hunters with hides. It is reported that large unsealed Alaska hides can be disposed of for as much as $2000 in cash. Many bears taken illegally for hunters and for sale are not presented to the Department for sealing and are not counted in the harvest. The potential for overharvest because of the unknown illegal kill is significant. It appears that the only way to stop these abuses will be to stop airplane hunting. Much illegal activity occurs now because pilot-guides have a legitimate reason to be in polar bear hunting areas. If aircraft hunting were not allowed, probably only a few pilots would travel to the arctic to hunt illegally, and they could be watched closely.

An alternative to airplane hunting would be to develop ground hunting either by dog team or snow machine. A few Eskimos at Point Hope and Wainwright are capable of providing guided ground hunts now, and more would probably be able to if there were more of a demand. Hunting could start in the late fall, after pregnant females that were going to den along the coast had done so, and continue through winter and spring. Hunting pressure, degree of success, and the total harvest would drop substantially, but most hunters that participated in a ground hunt would probably obtain much more satisfaction than they would from an airplane hunt. Hnuters would be less selective, and there would probably be a higher ratio of females in the harvest. The total number of females would be less, however. A more balanced sex ratio in the harvest might be desirable since a predominantly male harvest over a number of years might eventually result in too few males to breed all receptive females during the breeding season. From an economic standpoint, arctic coast villages might receive more benefit from guided ground hunting where guide fees remain in the village than from airplane hunting. Substitution of ground hunting for airplane hunting would stop most criticism regarding ethics, the possibility of overharvest, and need for Federal or international control.

One more season of aircraft hunting after the present season rather than an immediate closure is recommended in order that pilot-guides can phase out their operations and the Department can phase out that part of its research program based on hunter harvest. Elimination of aircraft hunting is a major management change, and informal recommendations are hereby being made a year in advance of when formal recommendations will be made. It is hoped that this will allow the Board and the public time for thorough review and comment.

Another consideration is Senate Bill 71, recently introduced in the Alaska legislature. This bill would stop all hunting of polar bears other than for subsistence. The bill appears to have wide support and might be passed if it appears that the Department and the Board are not seriously considering the airplane hunting problem. Passage of the bill would take management prerogatives normally vested with the Board of Fish and Game from the Board and would prevent ground hunting for recreation, an activity which is judged to be a desirable method of resource utilization.

STATE OF ALASKA,
OFFICE OF THE GOVERNOR,
Juneau, May 8, 1970.

POLAR BEAR CONSERVATION

Dr. DONALD L. MCKERNAN,
Special Assistant for Fisheries and Wildlife to the Secretary,
Department of State,
Washington, D.C.

DEAR DR. MCKERNAN: A biologist from the Alaska Department of Fish and Game has represented Alaska at each of the working meetings of the Polar Bear Group of Research Specialists. The State of Alaska is actively engaged in polar bear research activities, and I believe that the results of this research will help insure the perpetuation of this fine animal.

The Alaska harvest of polar bears during the past five years has averaged about 300 bears per year, and all indications are that this harvest is not adversely affecting our bear populations. Department statistics show that such indices as average hide size, percentage of males in the harvest, and the age structure of the harvest are remaining constant, and overexploitation is apparently not occurring. Consequently, because of this information, our game biologists feel that an annual harvest of 300 bears is conservative and can be maintained without endangering population levels.

Recently, the Alaska Board of Fish and Game adopted a regulation which establishes a limited permit type of polar bear season and, thereby, insures that the harvest of 300 bears per year will not be exceeded.

As I am certain you are aware, polar bear hunting by the use of aircraft has received much criticism. Many suggest that this means of hunting is not sporting enough, but our contention is that aircraft hunting is the only practical manner of harvesting these animals. There is still much demand for these animals, and we feel that sportsmen should be allowed to take a few for trophy purposes. Conservation to most Alaskans entails the wise use of our resources rather than a policy of preservation. I can assure you if biological data indicated that these superb animals were in danger of overexploitation, our biologists would be the first to take remedial action. We plan to continue our research efforts and will continue to closely monitor polar bear hunting. Our polar bear biologist will remain an active participant in international polar bear meetings in order to keep up to date on findings of biologists from other countries and, should further restrictions on hunting become necessary and justifiable, such action will be taken.

I hope that this explanation of our policies regarding polar bears will be helpful. If you have further questions, please feel free to contact me.

Best personal regards.

Sincerely yours,

KEITH H. MILLER,
Governor.

MARCH 27, 1970.

Hon. KEITH H. MILLER,
Governor of Alaska, Juneau, Alaska.

DEAR GOVERNOR MILLER: I would like respectfully to request your comments regarding a proposal of the International Union for the Conservation of Nature and Natural Resources (IUCN) in Morges, Switzerland that the Governments of the United States, Canada, Denmark, Norway and the USSR review their polar bear conservation program with a view to drastically curtailing the taking of those animals for a period of five years, beginning next hunting season.

This proposal, which was sent to our Ambassador in Bern by the IUCN, originated in the Second Working Meeting of the Polar Bear Group of Research Specialists, Survival Service Commission, IUCN, held in Morges, February 4, 1970. According to the IUCN, that Group, whose principal objective is to expedite the collection of data as a basis for conservation of polar bears, has indicated that their studies will require some time for completion and that meanwhile present restrictions imposed by Governments on the killing and capturing of polar bears appears to be insufficient, as the number of polar bears in general has not essentially increased.

The present proposal of the IUCN appears to be related to the Statement of Accord which resulted from the First International Scientific Meeting on the Polar Bear, held at the University of Alaska in Fairbanks, September, 1965.

I would be most grateful for your comments on this matter.

Sincerely,

DONALD L. MCKERNAN,
Special Assistant for Fisheries and Wildlife to the Secretary.

[The Wildlife Society News, December, 1970]

NEW LAW ENCOURAGES RATIONAL USE OF WILDLIFE

(By Eley P. Denson and Harry A. Goodwin, Office of International Activities/Endangered Species Bureau of Sport Fisheries and Wildlife)

Ed. Note: The Endangered Species Conservation Act of 1969 was described by President Nixon as ". . . the most significant action this Nation has ever taken in an international effort to preserve the world's wildlife." This article explains some of the major aspects of the bill.

On December 5, 1969, President Nixon signed into law an act which is principally designed to help conserve native and foreign wildlife threatened with extinction. The new law amends the Lacey and Black Bass Acts, and in part, combines with the Endangered Species Act of 1966 to form the Endangered Species Conservation Act of 1969. Most provisions of the law became effective in June 1970.

The Act is the product of cooperation between U.S. conservationists, who desire to protect threatened wildlife throughout the world, and the enlightened self-interest of users who need to assure themselves of future supplies of wildlife and wildlife products. Enactment received tremendous public support. Fifty Representatives and Senators joined in sponsoring 18 endangered species bills.

Many aspects of the legislation to protect endangered species are poorly understood. Both support and opposition to passage were based on the hope or fear that it would stop the importation of almost all wildlife into the United States. Innumerable questions are being asked about the law. Are all leopards and other spotted cats endangered? Will importation of all species listed in the Red Data Books of the International Union for Conservation of Nature and Natural Resources be prohibited? It is a Federal offense to kill alligators? Is there a Federal penalty for killing endangered wildlife? Why doesen't the Government object to hunting of rare species? Will the act help stop smuggling? What is the difference between the Secretary of the Interior's enadngered species list and the Bureau's Red Book? Aren't all rare species endangered.

A brief review might help to answer some of these most asked questions. The Act of October 15, 1966, which was popularly known as the Endangered Species Preservation Act, directed the Secretary of the Interior to prepare a list of endangered native fish and wildlife. Many organizations and scientists contributed information for use in preparing the list. To help protect these species, Interior is authorized to study their habits and needs, to help increase their numbers through propagation and to acquire needed habitat. Interior, Agriculture and Defense are directed to protect endangered species and habitat on lands which they administer when it does not conflict with the primary purpose of the area. There are now 101 species or subspecies native to the United States on the list. It is published in the Federal Register and revised periodically.

The Bureau's Red Book summarizes the status of both endangered and rare species. It lists peripheral species and those whose status is in doubt to arouse interest and stimulate research. The Red Book is a working tool; whereas the Secretary's list has legal status and authorizes an active program aimed at protecting named endangered species.

Rare does not mean the same thing as endangered. Lack of habitat may restrict a species' range and cause it to be rare without causing it to be endangered. Tule elk are rare because additional habitat is not available for them. But, under the State of California's management, they are not endangered. On the other hand, alligators which still number between 230,000–540,000 according to State estimates are considered to be endangered because poaching has been decreasing their numbers so rapidly.

There is no Federal penalty for killing an animal simply because it is endangered. Primary responsibility for protecting endangered species rests on the States. Federal authority to regulate the taking of wildlife stems from the migratory bird conventions, and the taking of resident fish and wildlife is controlled by the individual States. The Act of 1966 stated: "Nothing in this Act shall be construed to authorize the Secretary (of the Interior) to regulate the hunting or fishing of resident fish and wildlife, including endangered species thereof, on lands not within the (National Wildlife Refuge) System." A bill before Congress, which has passed the Senate and is before the House reaffirms the rights of the States to manage resident species.

The Act of 1969 directs the Secretary of the Interior to develop a second endangered species list covering foreign fish and wildlife facing extinction. The law permits importation of listed forms into the United States only for scientific purposes or for propagation in captivity to preserve the species. Responsibility for developing the list is assigned to the Bureau's Office of Endangered Species. International organizations, conservation agencies, and scientists in more than 55 countries have been consulted. Some countries do not have effective wildlife conservation agencies, but the inability to protect or the disinterest of another country in saving its wildlife does not prevent a species from being included on Interior's list if there is evidence that it is endangered. The inital list which will probably be expanded several times as data are accumulated in the next two years was published with implementing regulations in the Federal Register on June 2. Additional species were proposed July 30.

The International Union for Conservation of Nature and Natural Resources (IUCN) is a primary source of data. Interior is a member of IUCN and our Bureau is represented on its Ecology and Survival Service Commissions.

The Survival Service Commission prepared the Red Data Books, which are handbooks on the status of the world's fish and wildlife, and resemble the Bureau's Red Book. Volumes I and II contain data on more than 500 species and subspecies of mammals and birds; material on reptiles, amphibians, and fishes has recently been issued. IUCN uses four categories to describe forms listed in its books; endangered, rare depleted, and indeterminate. Those described as endangered were prime candidates for Interior's list. The majority of species in their Red Data Book are not in the endangered category.

Both full species and subspecies are treated in the Bureau's Red Book and IUCN's Red Data Books. The use of subspecies makes it possible to focus attention on endangered populations of species which, as a whole, are in good condition. IUCN also bases its use of subspecies on the rationale that "For reasons of national pride there is often a better chance that a government will take responsibility for effective action to safeguard a race known to be more or less restricted to its own country than interest itself in a species which occurs over a wide region."

Regardless of reason, splitting species into subspecies tends to be confusing. Describing the eastern timber wolf of the North Central States, southern bald eagle, and Florida panther as endangered, although other populations of wolves, eagles, and cougars are in satisfactory condition, has resulted in the widespread misconception that all wolves, eagles, and mountain lions are endangered.

Sometimes there is disagreement among taxonomists about the validity of the subspeciation or even speciation. Authorities disagree on whether some of the lemurs and monkeys included in IUCN's Red Data Books are valid subspecies. Some authorities believe there are 14 subspecies of leopard (*Panthera pardus*), others say 30, and at least one believes there are no real subspecies but some geographic variation. Disputes between "splitters" and "lumpers" are familiar to biologists, but difficult to explain to laymen.

The 1969 act does not authorize the banning of species or subspecies which are abundant in order to prevent the importation of similar endangered forms. As a matter of practicality, in order to prevent the importation of endangered species: either the endangered form must be readily distinguishable from nonendangered relatives or it must be geographically isolated so that animals from a certain geographic area can be embargoed.

There is a widespread belief fostered by publicity and fund raising campaigns and furthered by advertisements for fake furs that all spotted cats and innumerable other species are endangered by the culprits, the insatiable demand of hunters for trophies, the desire of wealthy women for coats made of furs of wild animals, the novelty of exotic pets or fish, the need of laboratories for research animals. The popular press has tended to portray overharvest (mostly by and for Americans) as the principal enemy of wildlife survival throughout the world.

The reasons for the decline of most endangered species are far more complex. The real villains in the battle for survival of most wildlife are expanding human populations and accompanying loss and degradation of habitat.

In the United States, we faced somewhat similar problems in preserving our wildlife. No matter how much we now deplore the slaughter during the 1800's, ranchers and farmers of the high plains would not tolerate bison, in their original numbers, roaming across Western States. Likewise, a villager who measures his wealth in terms of cattle and goats, or who depends for survival on a few acres of barley or millet is unlikely to be sympathetic to sentimental pleas to preserve animals which raid his herds, destroy his fields, or present a real or fancied threat to his family's safety. In essence, when idealists who oppose any use of wildlife expect the people of developing lands to encourage the presence of large animals in their midst, while deriving no benefit from their presence through either sale of hunting privileges, meat or skins, they are expecting them to put up with a way of life which we have rejected.

Trophy hunting and the demands of fashion are not factors in the plight of most species. Replies have not been received from many of the organizations being consulted about the status of foreign wildlife, but IUCN's Red Data Book on mammals provides a basis for considering the status of African species or subspecies. Of the five subspecies of leopard (*Panthera pardus*) on which data are included, the Barbary leopard is from North Africa and the others are from Arabia and the Middle East. Hides are rarely imported from these countries. Many people believe that African cheetahs are endangered, but available evidence does not bear this out. More than half of the African mammals included in the Red Data Books are of no interest to furriers or sportsmen: almost all the remainder are found in the semi-desert regions of North Africa where Americans rarely hunt.

The leaders of new nations have often remarked that the needs of animals must come second to the needs of man. If there is to be support for preserving animals outside parks—if game is not to be replaced with livestock—then the products of wildlife must have a financial value. Tourism provides much revenue for African countries, but tourism alone cannot justify a widespread wild animal population. A relatively small number of animals confined to parks can satisfy the needs of tourists. It was the money their tribes receive from hunting license fees which prompted chieftains along the Luangwa Valley of Zambia to encourage their followers to conserve rhinos when, just a few years ago, they were unconcerned about poaching which would have led to elimination of rhinos from the Valley.

While most endangered animals are rarely imported, inclusion on the Secretary's list of foreign species will protect species coveted as pets or sought by unscrupulous collectors because of their rarity. Typical of those which could benefit from such protection are some lemurs of Madagascar, the orangutan, and the Asian rhinos which command high prices from zoos and the Galapagos tortoises which have even been sold as pets. The aid of zoos, museums, and scientific associations will be sought to screen requests for permission to import specimens in order to insure that only requests with scientific merit are granted. Collectors of vanishing species will be denied the opportunity to bring their prizes back to the United States.

The law is not intended to stop importation of foreign wildlife. Several million-dollar industries are dependent upon animals or wildlife products imported into the United States. Perhaps even more important are the needs of medical research for foreign wildlife. As an example, hundreds of thousands of Rhesus monkeys were imported during the work to develop Salk vaccine.

It is true that the law will have effect on the *total* volume of wildlife importations, but this does not mean that the law will not have little effect on importations. Rational management and use of wildlife keeps populations in balance with birth rate, habitat, and food supply without endangering their survival. Poaching and smuggling of hides and feathers are international problems which potentially threaten the existence of many creatures that could maintain stable populations under less intense pressure regulated by wildlife conservation agencies.

Since 1930, importation of mammals, birds and fish taken or exported illegally from their country of origin has been unlawful under provisions of the Tariff and Lacey Acts. Our help has been rarely solicited because the laws have been little known abroad, and the prohibitions have been generally unenforced because of communications difficulties and our lack of knowledge of foreign regulations. Now, however, the conservation agencies of other countries are being asked for copies of their laws. Closer liaison with foreign officials is planned and several actions were taken in late 1969 and 1970 against importers of smuggled hides and feathers.

The 1969 law covers all vertebrate life, plus mollusks and crustaceans. Earlier legislation had protected only mammals, birds, and fish. It is now a Federal offense to purchase, ship or sell alligators or other reptiles in interstate commerce if they were taken contrary to State or foreign law. This new provision, rather than the alligator's status as an endangered species, gives Federal agents authority to assist the States in curbing the traffic in poached hides. Similar authority helped halt the trade in egret feathers shortly after the Lacey Act was passed.

All live wildlife imported into the United States must now be declared to Customs officials at the U.S. port of entry. The new law requires that packages containing wildlife products entering the country be labeled on the outside with the name and address of the shipper and consignee, and a description of the contents. We hope that this will aid foreign agencies to detect shipments of hides being smuggled out mislabeled as "personal effects."

To simplify enforcement of regulations, ports of entry into the U.S. for live wildlife, hides and hide products (except those originating in Canada and Mexico) will be limited although there are provisions for exceptions in unusual circumstances. A regulation has been adopted which will require most incoming shipments to be accompanied either by a certificate of origin or one of legal taking (such as that already used by East African countries) issued by appropriate authorities in the country where the animal or produce originated. This, too, should help the identification of easily confused subspecies. It should also help reduce smuggling. Some countries without laws regulating the traffic in hides export far more skins than they could possibly produce. We doubt that officials in these countries will be willing to certify skins that were not actually taken within their country's boundaries.

In this country we learned long ago that protection was not enough to insure the well-being of wildife. Management is needed as well, and the Endangered Species Conservation Act of 1969 directs Interior to provide technical assistance in developing programs to prevent foreign fish and wildlife from becoming extinct.

We also hope to help increase foreign expertise in the fields of fish and wildlife management. When there is space available, foreign students are welcome at schools operated by the Bureau of Sport Fisheries and Wildlife for its own personnel. Here they can take on-the-job training in fish and wildlife management at Bureau installations and accompany biologists in the field to learn more about wildlife management.

Finally, the new act directs the Secretary of State and the Secretary of the Interior to encourage the signing of an international convention which would regulate the trade in wildlife. Without such an agreement and international cooperation, the efforts of a single country can only delay, not stop, the loss of wildlife. We believe that the recently signed African Convention on Conservation of Nature and Natural Resources is a step toward actually halting wildlife losses.

Fortunately the United States is not alone in its desire to restrict trade in endangered wildlife. Britain now controls importation of certain live wild animals and limits ports of entry. The Endangered Species Conservation Act directs that we encourage other countries to sign conventions regarding the importation of wildlife. The IUCN is circulating a draft "Convention on the Import, Export and Transit of Certain Species" under which signatory nations agree to limit the export or import of listed species and adopt uniform documentation for international wildlife shipments. Reportedly, Canada and Germany have committed themselves to signing. Some of the former British East African nations plan to regulate the importation of hides from adjoining areas in order to assist each other to stop smuggling. Progress is being made.

At a time when an expanding human population throughout the world appears inevitable, we shall have to redouble our efforts to protect our wildlife. Coupled with rapid economic growth and technological development, this expanding population will bring changes to our environment. These changes do not need to compound the problem of needless extinction of wildlife species. We are hopeful about the future.

INTERNATIONAL CONSERVATION OF THE POLAR BEAR: A REPORT ON PROGRESS

(By Richard A. Cooley)

Scientists from five Arctic nations met at the IUCN in Morges, in February 1970, to exchange information and coordinate research programs on the polar bear. This was the second such meeting sponsored by IUCN, the first being held at Morges in January 1963. See IUCN Bulletin, April–June 1968, Vol. 2, No. 7.

At the 1968 meeting the scientists expressed a deep concern for the future of the Polar Bear, which is presently listed as an endangered species. They noted an urgent need for more precise information about population, regional distributions, migration patterns and the dynamics of reproduction. The meeting also revealed disagreements as to the actual status of the species which have led to international controversy over issues of national conservation policy. The delegates to the first meeting agreed on the great need for continuing scientific communication and international collaboration in research, and voted unanimously to request establishment of an "international polar bear ground" under IUCN's Survival Service Commission. This proposal was subsequently approved with the principal objectives being (1) to expedite the collection of scientific data as a basis for future management and conservation; (2) to identify the scientific problems and geographical regions in which international research is desirable; (3) to determine research priorities and stimulate national action toward common goals; and (4) to serve as a general forum for exchange of ideas and information on this and other problems concerning high Arctic fauna. Dr. S. M. Uspensky, U.S.S.R., was unanimously elected first chairman of the new group.

The February 1970 meeting was held to determine progress toward these goals. Attending were working scientists from the five circumpolar nations: A. H. Macpherson, C. F. Jonkel and J. S. Tener, from Canada; Christian Vibe from Denmark; T. Larsen and M. Norderhaug from Norway, J. W. Lentfer and J. W. Brooks from U.S.A., and S. M. Uspensky and A. A. Kistschinsky from U.S.S.R.; R. A. Cooley, U.S.A., served as technical secretary and rapporteur; IUCN staff members also were present. The meeting was chaired by J.S. Tener of Canada.

To facilitate free discussion, it was decided at the outset to limit attendance to working scientists having direct responsibilities for polar bear research, management and conservation in their respective countries.

RESEARCH PROGRESS

Reports on research programs revealed that all of the nations, with the exception of Denmark, had greatly increased research efforts since the earlier meeting in 1968; that there had been freer and more effective exchange of scientific data and personnel among the five countries; and that significant progress had been made toward the original research objectives.

Much discussion was devoted to the development and improvement of techniques for live capture and tagging. This work has been carried out successfully during the last two years on a cooperative international basis (primarily by Canada, Norway and the United States), and over 450 polar bears have now been tagged. Data returns from this and related research indicated that there may be at least five more-or-less separate or discrete populations of polar bear rather than one large circumpolar population moving freely about the Arctic, as earlier believed. These are located in: (1) the Spitzbergen-Franz Joseph Land—east Greenland region, (2) the Hudson Bay region of Canada, (3) the high Canadian Arctic, (4) the high Canada—eastern Alaska region, and (5) the western Alaska and eastern U.S.S.R. region.

Radio telemetry equipment for tracking polar bear migrations was also discussed in detail, especially the recent experiments in Canada and Alaska aimed at developing new types of equipment which promises to increase greatly the effectiveness of this technique.

Significant progress was also revealed in the location of important polar bear denning areas throughout the Arctic. Each year pregnant females invariably resort to certain specified area in October or November where they den and bear their cubs. Knowing the location of major denning areas is of great importance in understanding the range and distribution of the species. Also, since these areas are widely scattered and limited in number, their discovery and protection is of utmost significance for the survival of the species. The main areas so far delineated are in the U.S.S.R. and Canada with minor areas found in Greenland and Spitzbergen. Only a very few dens have been located in Alaska. Polar bears along the Alaska coast most likely move in annually from eastern Siberia and from western Canada. An important finding was that Kong Karls Land, once thought to be a major denning area, is perhaps relatively insignificant; most polar bears moving into the Spitzbergen region appear to come from the Soviet Union on the westward moving ice.

The Danish delegate, Dr. Christian Vibe, stressed the importance of gaining much more precise knowledge about climate and sea ice conditions in order to understand both the movements and size of polar bear populations. His work over several decades has shown this to be of primary importance in understanding population dynamics of polar bear and other wildlife species in Greenland, and it is very likely highly relevant for all Arctic regions. Dr. Vibe indicated that polar bear research had been hampered in Greenland by lack of staff and funds, but plans are being made by the Danish government to launch a tagging program in 1971 in cooperation with Canada and Norway.

Good cooperation has occurred among the five nations in respect to other important research needs, with nation accepting certain primary responsibilities. Food habitat studies as well as behavioral studies have been carried forward successfully by Canadian cooperation with several universities. Primary responsibility for important physiological studies has been taken by Norwegian scientists, while scientists from other countries have taken the initiative to coordinate taxonomy studies, including morphometric and electrophoretic studies of blood samples which are important in determining the possible existence of discrete populations or races of polar bear. The work by Canada in analyzing the concentration of DDT in fat tissues of polar bears was also discussed, and plans were made to extend this work internationally on a cooperative basis.

CONSERVATION PROGRESS

Reports on conservation measures disclosed that the five nations had been relatively successful in maintaining the *status quo* with respect to the total annual kill of polar bear within their respective jurisdictions. (The scientists estimated that a total of around 1250 polar bears had been killed throughout the the Arctic in 1969.

The polar bear is given total protection in the Soviet Arctic. It is also protected in special reserves located at Kong Karl's Land (Norway), James Bay (Canada) and Wrangell Island (U.S.S.R.). The Soviet scientists indicated that plans are being made for additional reserves on Taimyr Peninsula, Chukchi Peninsula and northeast Yakutsk. Cubs, and sows with cubs, are protected throughout much of the animal's circumpolar range.

As a result of progress toward the research objectives, some agreement emerged at the meeting concerning migrations of polar bears, the possible discretness of certain population, and other related matter. Unfortunately, it also became apparent that scientific information was still not adequate on which to base a precise estimate of the abundance of the species; a matter of critical importance in determining the true international status of the polar bear and the measures necessary for its conservation. While the group as a whole did not attempt an estimate of the total number of polar bears throughout the Arctic, the Soviet scientists indicated they did not believe the total exceeded 10,000 animals. This was considered as being much too low by scientists from the other countries, and no concensus could be reached.

The rapid rate of economic development in several key areas of the Arctic was discussed, and the scientists unanimously agreed that serious ecological problems may result to plague the polar bear and other Arctic fauna and flora unless proper precautions are taken immediately. Problems of oil spills and offshore oil drilling were examined, as well as increased illegal kills of polar bear and other animals by oil crews. Concern was also expressed that growing markets for polar bear hides will result in an increased harvest by Eskimos.

The Danish delegate pointed out that polar bear hunting was an intrinsic part of the culture of the Thule Eskimos in Greenland, in addition to being a very important source of food and clothing. While it will be very hard for them to change their way of life, he noted that this undoubtedly will be necessary because the Eskimo population is growing more rapidly than the polar bear population. Hunting of polar bears in Greenland is restricted to residents of one year or more. The Danish delegate discussed plans to establish a natural park in northeast Greenland in an area encompassing important polar bear denning sites. He also indicated all hunting regulations in Greenland would be revised and tightened in the next year.

The scientists expressed alarm that far-reaching proopsals advanced to the Norwegian government in 1968 for more effetcive polar bear conservation in Spitzbergen had not yet been implemented. Under present regulations, trophy hunters in Norwegian waters may kill only one bear a year and are not permitted to take cubs or sows with cubs; but the greatest proportion of the harvest (approximately 300 per year) is taken by professional hunters and trappers using set guns, and by meteorological crews and other wintering parties, none of whom are restricted by regulations. The Survival Service Commission of IUCN was requested to write the Norwegian government urging immediate adoption of regulations to correct this situation.

The Canadian delegate noted that sport hunting of polar bear had recently been authorized by the Northwest Territories government. Prior to this action, hunting of polar bear throughout the Canadian Arctic had been limited to Eskimos. According to the delegate, trophy hunting will be carried out within a strict quota system and should not result in an increase of the total harvest in Canada which amounts to approximately 350 to 400 animals per year. Also discussed was the rapidly growing use in recent years of mechanized snowmobiles by Eskimos to hunt polar bear which has greatly increased pressures on the resource in Canada as well as most other Arctic regions.

The hunting of polar bear off the coast of Alaska by big game trophy hunters using aircraft continued to produce a note of discord among the delegates, just as it had at the 1968 meeting. An average of approximately 300 polar bear are taken annually in northern Alaska waters and on the offshore icepack in international waters. Only two decades ago, nearly all polar bears were taken in this region by Eskimos using dog teams, but today over ninety percent of the kill is by affluent sportsmen from the United States. The total number of animals taken annually has increased greatly during this period. Regulation of hunting, which is under the jurisdiction of the Alaska state government, has been increasingly restrictive during recent years but has been only partially successful in controlling the number of animals taken each year owing to the growing demand for these hunts. A problem of illegal hunting of polar bear has also developed in recent years. As a result, the Alaska government plans to institute a strict permit system in 1970, aimed at keeping the total harvest at 300 to 350 animals during the next few years while research on the status of the polar bear progresses.

The Soviet Union is highly critical of the airplane hunting methods employed in Alaska. Dr. Uspensky pointed out during the meeting that the U.S.S.R. had banned all hunting of polar bear in 1956 because their scientists had concluded that the animal was endangered and drastic action was required to preserve the species. He noted that these efforts have been offset by increased hunting out of Alaska on the east and out of Spitzbergen (Norway) on the west of the Soviet Arctic. Since the major known denning areas for the production of polar bears moving into these waters are in the Soviet Arctic, it is not surprising that the Soviet scientists are apprehensive. Why should the U.S.S.R. provide complete protection for the polar bear, Uspensky said, if they are only producing a larger crop for neighboring nations that allow airplane hunting for trophy, in the case of Alaska; and, in the case of Norway, trophy hunting by boat as well as set-gun hunting by wintering trappers in Spitzbergen? (A set-gun is a baited box rigged with a gun which discharges when the polar bear sticks his head in to investigate.)

It is not difficult to comprehend why the Soviet scientists are concerned; and herein lies the reason why preservation of the polar bear is an international problem. Canada also realizes that polar bears from its western Arctic are also migrating into northern Alaska waters to be cropped by American sportsmen, and it is not surprising under the circumstances that the Northwest territorial government has opted for their own program of trophy hunting. Obviously, no one nation can handle the situation alone.

THE FUTURE OF THE POLAR BEAR

There was unanimous agreement that the group should continue its efforts and that additional research was needed in order to clarify the exact status of the species. That this could be accomplished only through international collaboration was also accepted by all of the delegates. Among the technical matters discussed requiring international cooperation during the next two years were tagging programs, radio telemetry and the use of satellite (infrared heat-sensing) devices to monitor polar bear migrations. Because existing national tagging programs do not meet requirements of all five countries, a committee was established to develop an international program which can agree upon materials, designs, languages and other matters that facilitate exchange of data among the countries. For example, the committee will examine the possibility of using a common international tag under IUCN coordination.

It was agreed that work on long-range telemetry and heat-sensing devices conducted by the separate nations should be made known to all delegates as soon as possible. On the recommendation of Dr. Uspensky, it was unanimously agreed that the terms of references for the Polar Bear Group should be modified by the addition of a statement clearly identifying that the conservation of the polar bear is an international circumpolar problem which must be conducted for peaceful purposes only.

Agreement was reached on a number of specific areas for research collaboration. These included: (1) collect of fat samples for pesticides determinations and food habits studies; (2) a comprehensive study by Canada, with assistance from all other Arctic countries, to develop an ecological model of polar bear dynamics, including ice movements, seal distribution and abundance, and other factors influencing polar bear numbers and movements; (3) continued study of blood samples (Norway) and age-determination studies (Alaska) which may lead to greater understanding of the discreteness of populations; (4) exchange of information between specialists in Canada and the U.S.S.R. on the taxonomy of the polar bear; (5) continuing international collaboration on tagging programs aimed at better understanding of migration patterns; (6) additional surveys to locate new denning areas throughout the Arctic and to determine the productivity of the species throughout its northern range (studies are especially needed in Greenland and Canada); and (7) other collaborative efforts aimed at reaching a scientific agreement on the total population of the polar bear and the vital question of what additional international efforts may be required to preserve the species from extinction. It was also revealed at the meeting that the IUCN's Ecology Commission planned to establish a committee on Arctic habitats, and it was agreed that the polar bear group should coordinate its work with this committee. The group concluded that it is meaningless to try to preserve the polar bear without adequate understanding of what is happening to the total Arctic environment.

On the last day of the meeting the delegates from the Soviet Union requested the IUCN to call upon the governments of the United States, Canada, Norway, and Denmark to ban *all* hunting of polar bear for a five year period so that the on-going international research program could go ahead without the threat of a continued decline of the species. After considerable discussion, agreement was reached on a modified wording of the proposal.

The appeal was subsequently endorsed by the Survival Service Commission and transmitted to the several governments by the IUCN.

A final subject considered by the polar bear group was the possibility of an International Convention for Research and Management of the Polar Bear. Mr. Wolfgang Burhenne presented an outline of alternatives to assist the delegates in considering a possible framework for an international convention, but he emphasized that the terms of any such convention would have to be developed in official consultation with the respective governments. The delegates agreed to for a more comprehensive discussion on the subject at the next meeting which will be held in February 1972. The delegates elected Dr. Andrew Macpherson of Canada as chairman for the next two years.

THE FUR SEAL CONVENTION : A WORKING MANAGEMENT PROGRAM

The recent action by the International Fur Trade Federation to recommend a voluntary total ban on trade in the skins of 5 gravely endangered animals, and a temporary ban of three years on leopard and cheetah skins, might well be regarded as a welcome step toward an agreed international plan to manage these declining resources on a rational basis.

Such management plans can be completely successful, as has been clearly demonstrated in connection with the northern fur seals of the Pribilof Islands of Alaska. At one time on the verge of extinction, the fur seal herds have been re-established under a four-nation treaty, and their productivity has been high because of enlightened harvest programmes.

Major seal rookeries exist on three island areas in the northern Pacific: the Pribilofs under US jurisdiction, the Commander islands, some of the Kuriles and Robben island under Soviet control. Prior to 1911, excessive hunting plus the wasteful and uncontrolled pelagic harvest had reduced the herds to remnants.

After extended negotiations, and with Asian seals near extinction and the Pribilof population down to 200,000 animals, the United States, Great Britain, Japan, and Russia concluded a convention for protection of the North Pacific fur seals. Only native people using primitive methods could continue to kill fur seals on the high seas. In exchange for the ban on pelagic sealing the United States and the Soviet Union provide Japan and Canada each with 15 percent of the harvest from the Pribilofs and 15 percent of the harvest from those islands under jurisdiction of the Soviet Union.

The Pribilof herd is now estimated at some 1.5 million animals. The Asian herds have increased substantially and are still growing.

In the United States, the Fur Seal Act of 1966 charges the Secretary of the Interior with the management of the fur seals under U.S. jurisdiction. His Department's Bureau of Commercial Fisheries supervises the harvest of an average of 50,000 fur seals each summer on the Pribilof Islands.

The harvest is restricted largely to 3- and 4-year old "bachelor" males that congregate on the edges of the rookeries. Females are killed only when this is required to keep the number of animals at the most productive level the environment can support.

The outlook for the future of this natural resource is bright, provided that international cooperative management can be continued. Given that continued cooperation, the fur seal resource will be available not only for furs and food but in addition provide a unique opportunity for man to observe and study one of the world's outstanding animals, in a population in the millions, in an environment much as it has existed over ages past.

Source of data: *Fur Seals of the Pribilof Islands*, U.S. Department of the Interior, 1970.

Four roe-deer were recently flown from Amsterdam to Rome as a gift from the WWF, Netherlands to the WWF Italy. These animals will serve as a breeding nucleus in the Abruzzi National Park from which roe-deer have long disappeared.

This operation inaugurates a repopulation programme in the Abruzzi with animals no longer to be found there, which will be financed by the WWF and carried out by the WWF National Appeals in the Netherlands, Austria, Switzerland, and Italy.

MISCELLANEOUS MATERIALS ON MARINE MAMMALS

STUDENTS FOR ENVIRONMENTAL QUALITY,
BELLPORT SENIOR HIGH,
Brookhaven, N.Y., March 1, 1971.

DEAR SIR: At present, Senator Bernard Smith is preparing a bill which is passed will protect New York's seals from being hunted in any manner. Reports of hunting, including a recent shooting at Moriches Inlet, point up the need for such legislation. The bill will be passed if we can supply enough support. We are contacting environmentally oriented organizations such as yours requesting support for the seal bill.

The only seal that is found in our area is the harbor seal; however, we feel the bill should protect any seal that should enter our waters. Seals are no threat to the commercial fishing industry since their numbers are low. There is no sport in hunting them since they may be approached easily within close shooting range. The harbor seal cannot damage or be caught in modern fish traps since the mouths of the traps are too small.

Enclosed is a fact sheet on Long Island's seals and a petition which you might circulate. We would appreciate your sending us a copy of your supporting letter. Please recycle this information to friends and other organizations.

Sincerely yours,

RONALD ROZSA,
Chairman of the Students for Environmental Quality.
JOHN H. JENSEN,
Chairman of the Committee on Seal Protection.

Enclosure.

Address letters to:
Senator Bernard C. Smith, Senate Chamber, Albany, New York.
Assemblyman Peter J. Costigan, Assembly Chamber, Albany, New York.

NEW YORK SEAL DATA SHEET

Few Long Islanders have ever seen a seal. The mammal's preference for northern waters and the very scarcity of most pinniped species as a result of long-term decimation has made their appearance a seldom witnessed pleasure. Yet, they are spotted with sufficient regularity to confirm their presence, which is being gravely threatened by man's predation, unchecked by any law.

A letter in the Long Island Advance by David Pate[1] reports the shooting of seals in Moriches Inlet near Fire Island, and similar accounts were written as early as 1896 in the Long Island Forum.[2]

When man began to inhabit Long Island, seals came ashore in large numbers, but the encroachment of civilization has substantially reduced their population. The numbers of seals sighted during the present century have remained fairly constant, with an estimated forty to fifty seals seen in winter and at most a possible five seals seen in summer.

Roy Latham,[3] an eminent Long Island naturalist, has kept records of the harbor seal (*Phoca vitulina*) from 1900 to 1971. His largest record of seals in the winter season was a count of fifty-two around Plum Island, grouped in pairs and trios. Some Bellport High School students[4] reported an assemblage of thirty-two seals at Moriches Inlet on February 13, 1971, and on February 17, 1971 another twenty-five seals in the Inlet.

The harbor seal (*P. vitulina*) is the only pinniped species likely to be seen in Long Island waters, although the harp and gray seals have been reported in waters near the Island, and one record exists for a hooded seal seen in Eastchester, New York. Harbor seals generally stay within sight of land and occasionally enter large rivers. Their coloration varies from yellowish-gray and dappled with black, to black with some white spots. The harbor seal is most commonly sighted from December to February, although it occurs in a season ranging from November to May. October 18, 1970 is the earliest known autumn sighting of a seal, a date reported by the naturalist Judd Bennett.[5] The Fire Island National Seashore authorities recorded the sighting of a seal on August 11, 1967. Harbor seals are usually rather inquisitive and they may occasionally be approached quite closely. Tomcod, flounder, squid, octopus, and some crustaceans form the bulk of their prey.

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[1] Pate, David, letter in Long Island Advance, Jan. 26, 1971.

[2] Long Island Forum, vol. 12, 1949.

[3] Latham, Roy, The Osprey's Nest, Orient, New York 11957, correspondence to Ronald Rozsa, Bellport Senior High School, Brookhaven, N.Y. 11719.

[4] Bellport Senior High School, Brookhaven, N.Y. 11719.

Their scarcity, seasonal habits, and diet indicate that harbor seals do not comprise a threat to the commercial fishing industry. In addition, the small funnel mouths of modern fish traps make such devices inaccessible to seals.

Where is the sport in killing an animal that can easily be approached to within a ridiculously short shooting distance? An account of feeding killies to a harbor seal confirms the proximity of their approach.[6] The skins of these particular seals are of no practical use to man. What rationalization can justify the cruelty of killing such a rare, harmess, defenseless and beautiful creature as the seal? There are more challenging targets for the hunter "brave" enough to kill them.

Senator Bernard Smith[7] is presently sponsoring a bill, S-5131, to amend Section 152 of the Conservation Law, thus affording the urgently needed legal protection of seals in New York State. Such legislation needs the full, conspicuous support of concerned citizens and organizations.

[From the St. Louis Post-Dispatch, March 25, 1971]

BABY SEAL HUNT IN CANADA

(By Sally Bixby Defty, Post-Dispatch Staff)

Since 1964 when the first movies were made of the annual killing of baby harp seals in the Gulf of the St. Lawrence River, the Canadian government has received a barrage of brickbats from conservationists all over the world, urging that the kill be stopped.

The hunt will probably cease within five years, Mrs. R. Marlin Perkins predicted after her return March 15 from watching the "harvest" of fluffy white pelts.

It will not end because of a directive from the Canadian government, however. Mrs. Perkins believes. It will end because there will only be small numbers of seals left, she says.

"When going after the baby seals is no longer economically attractive because there are so few, the hunt will end," she said. "And the government will not have alienated the Newfoundland sealing interests or the French Canadians on the Magdalen Islands by banning the hunt."

Many persons, from government people to independent biologists and naturalists, expressed this view to Mrs. Perkins in her five-day stay. But the most impressive evidence came from Dr. David E. Sargeant, chief biologist for the research division of the Department of Fisheries.

It is Sargeant's job to estimate the size of the herd through aerial surveys to study the species, keep track of the number killed each spring and recommend a quota.

In May 1964 Dr. Sargeant testified at a meeting of representatives of the sealing industry and the Canadian government that evidence clearly indicated that the herd had been reduced by half in the preceding decade.

Speaking to Mrs. Perkins in a small hotel on Grindstone, one of the Magdalen Islands. Sargeant's warning was even more urgent. "He told me that the harp seals were expected to have about 300,000 pups this spring and that he had recommended that no more than 140,000 be killed," Mrs. Perkins said.

The Minister of Fisheries, Jack Davis, set the quota at 240,000.

She asked Sargeant for an explanation. "Dr. Sargeant looked uncomfortable and said quietly, 'No comment,' " she recalled.

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[5] Bennett, Judd, Feb. 6, 1971, "Reports of Harbor Seal in North Fork Area" for A. Cooley, Bellport Senior High School.

[6] Long Island Press, July 12, 1965.

[7] Senator Bernard Smith, Senate Building, Albany, N.Y.

Mrs. Perkins expedition began in Charlottetown, on Prince Edward Island, the smallest province in Canada. "It looks like a small town in upstate New York," she related, "with handsome Victorian houses and frame homes painted gay shades of peach, yellow, red and green—so bright and cheerful against the drab gray landscape."

More than 20 persons covertly scrutinized one another as they waited in the tiny airport for the plane that would take them to Grindstone.

The cast, like the motley assemblage at a country home in an Agatha Christie novel, was richly varied.

After a day's delay in Grindstone because of bad weather, Mrs. Perkins set off by helicopter early on March 13 for the ice floes on which the female seals have their young each spring.

Usually the hunt is conducted by about 350 men who work from as many as 10 large vessels, first gathering pelts in the Gulf and then moving north to kill seals in the "front herd," the seals that live off the east coast of Labrador.

This spring, for the first time in about a decade, the ice floes came so close to shore that the "landsmen," as the Magdalen Islanders are called, could walk the four miles to the seals.

"In the early morning light, we could clearly see the dark shapes of the men against the white ice, fanning out in all directions," Mrs. Perkins related. Many of the men rode out in snowmobiles, others pulled sleds or even rowboats to bring back the pelts. The landsmen sell skins to a co-op for about $8 each.

"A regular fever had come over the islanders, much like hunters at the start of the deer season," Mrs. Perkins said. The reform measures instituted by the Canadian government after the 1964 conference outlawed such methods of killing as "long-lining" (placing of large baited hooks), drowning in nets, and gaffing—driving a spike into the animal's head.

The Fisheries Department also specified the kind of club to be used, established a quota and required that all seal hunters be licensed. Of the 13,000 Magdaleners, 2000 purchased $1 licenses to participate in the hunt.

Mrs. Perkins was exhilarated by the spectacle of sky, ice and water as viewed from aloft, "when suddenly I saw it. Great red stains on the snow-packed ice. Darker spots—the small skinned bodies. And bloody streaks where the little skins were dragged to collection spots."

Deeply affected, she put on her ski goggles to hide a sudden rush of tears.

Once on the ice, far from any hunters, she was again entranced by the scene. Wearing her husband's Arctic jumpsuit ("the seat of the pants came down to my knees, but I was warm") she tried to remember the Marlin Perkins First Law of Ice: Always walk behind someone else.

"I just laughed out loud with delight as suddenly a dozen heads popped up from the water—mother seals checking out the intruders. Then I saw their pups huddled near a mound of ice for better camouflage," she recalled.

A baby seal is a ball of white fur for about the first three weeks of its life, putting on as much as 3 pounds of blubber a day on its mother's extremely rich milk.

The female leaves her pup after two and a half weeks, but he survives easily on his fat for a week or so until his white coat is shed. The young seal is then a "beater," ready to swim for fish and wearing a blue-gray coat that gives excellent protection from his natural enemy, the killer whale.

Mrs. Perkins and her companion were delighted watching the pups "when the sealers approached. Never glancing in our direction they went to work. A man stalked up to the baby nearest me, kicked it roughly into position and hit it with his club. But the baby squirmed and the blow caught him across his back.

"The next blow landed on his head and blood spurted out over the snow. Still squirming, the little body was rolled over on its back—the man held the baby between his feet as he calmly sharpened his knife. He quickly slit the baby down the stomach and blood poured onto the snow as the man sliced the skin from the little carcass. The bloody skin was thrown to one side, the little body was tossed to the other side as the man moved onto the next baby.

"I was choking on sobs. I knew it was no place for a weeping woman, that Brian Davies (head of the International Fund for Animal Welfare), had too many problems to inflict a bleeding heart on him at that point. But the tears just kept running out of my eyes. A mother seal came up onto the ice, went up to the remains of her baby and made pathetic, questioning, heart-breaking sounds. She circled and circled the body and finally lay down beside it, still calling out in a way that I shall hear as long as I live," Mrs. Perkins said.

She has little patience with persons who say that the economy of the Magdalen islanders is dependent on the annual hunt. "How can it be something they count on, when the ice only comes close enough once in a decade so that the landsmen can hunt and only 30 of the men on the ships are Magdalen Islanders? And in those three or four days the most a landsman can make is $500. This keeps them off welfare? Baloney, they're all on welfare. They sit there all winter and wait for the lobstering and fishing in the summer," she said.

She spoke to many of the seal hunters. Most had sandy hair, lots of freckles, blue eyes and a determination not to repeat the experience.

"They were courteous and patient, but each one said that this was his first time on the hunt—and his last." Thirteen of the landsmen had their licenses revoked for skinning baby seals that were still alive—something Mrs. Perkins attributes to their lack of experience.

Most of the money in the harp seal industry is Norwegian. The Canadian fleet is owned by Karl Carlson of Halifax, N.S., who is related to the owner of the hide-processing business in Norway, Mrs. Perkins said.

The skins obtained in the gulf are only a small part of the total harvest, most of which is obtained off the coast of Labrador. The gulf skins are processed in Newfoundland and then a portion is sent to Norway; the hides obtained on the "front" go directly to Norway. The fur is used primarily for collars and trimming.

Farley Mowatt, author of "People of the Deer," was one of those Mrs. Perkins met and talked with. Mowatt, who spent years in a remote area of Canada's arctic wilderness living with the inland Eskimos, told Mrs. Perkins what he had seen aboard one of the sealing vessels on the "front."

"There they shoot the seals. He told me that for every five seals that is shot, only one is taken. The other four slip off the ice into the water to die. Mr. Mowatt said that when you read that 150,000 seals were taken on the front, it means that half a million were killed," Mrs. Perkins said.

While most of the market for the fur is in Europe, Mrs. Perkins was told, a great deal of the leather finds its way to New York. "There is not a single product obtained from the ocean's mammals that does not have a satisfactory substitute," Mrs. Perkins said.

On Tuesday Senator Fred R. Harris (Dem.), Oklahoma, and Representative David Pryor (Dem.), Arkansas, introduced legislation that would not only ban the killing of ocean mammals in United States waters, but prohibit skins from those animals from being imported into the United States in raw or finished form.

The bill would also prohibit the killing of fur seals in the Pribilof Islands by the U.S. Government and would designate the islands as a national seal and bird sanctuary under the control of the Department of the Interior.

Her many trips to Africa have given Mrs. Perkins an acute awareness of diminishing species.

Mrs. Perkins said that her work for the Elsa Wildlife Fund and other conservation causes is "sometimes hopeless, thankless, frustrating and a heartbreaking way to spend one's life—coping with people who cannot see beyond their own personal fun, sport, profit or political gain to the empty world that lies ahead when wildlife no longer exists."

Weary and discouraged, Mrs. Perkins asked a Canadian official if letters and petitions had any effect at all on the government.

"Definitely," answered the scientists, who did not want his name revealed. "You must keep the pressure on. Don't ever stop. It is only the continued pressure of concerned people all over the world that has made the government put restrictions on the hunt so that it is as humane as it is," he said.

Mrs. Perkins recommends that persons who want to express their opinion on the seal kill write to the Canadian Ambassador, A. Edgar Ritchie, 1747 Massachusetts Avenue, Washington, and the Norwegian Ambassador, Arne Gunneng, 3401 Massachusetts Avenue.

The Canadian have hunted seals since the nineteenth century. The Norwegians began to participate in the hunt in 1938. No Norwegian ships have been allowed to hunt in the gulf since 1965, but the Norwegians still take the majority of the skins, from the coast of Labrador.

"The Canadian government has no jurisdiction over the Norwegian ships, no inspectors aboard and no way of enforcing either the quota or how the seals are killed," Mrs. Perkins said. The Norwegian hunt off the "front" will remain veiled in secrecy until some person or group charters a boat to patrol the waters off Labrador.

AX ABOUT TO FALL AGAIN ON FUR SEAL

(By Lewis Regenstein)

Regenstein, a U.S. government employee, lives in Arlington and is a consultant to the Committee on Humane Legislation.

Next Friday, with the opening of this year's Atlantic seal hunt, the slaughter of some 245,000 harp seals will begin. A particularly brutal aspect of this event will take place on the ice floes in Canada's Gulf of St. Lawrence. The harp seals return there every spring from their Atlantic migrations to give birth to their pups, one of nature's friendliest and most appealing creatures.

Within the first three or four days of life, the furs of the newborn pups turn snow white and remain that way for only about 10 days, afterward turning a gray color. These infant "whitecoats" are eagerly sought by hunters, and they are killed in a manner which, if observed, would surely trouble anyone slipping into a seal fur-trimmed parka for a day's recreation on the slopes.

It is during the pups' nursing period, when they are only a few days old and are completely helpless, that hunters descend on the seal herds to beat, spear, and club the baby seals to death. The killing and skinning of the pups take place in full sight of the terrified mothers, many of which stay with their young and try to protect them.

Seals are generally friendly and unafraid of their fellow mammals, and they become confused when the hunters attack them. The mothers that are driven off poke their heads from the water holes and watch helplessly; and at the end of the day, many of them crawl back on the ice to nuzzle and mourn over the bloody, lifeless carcasses of their dead young.

Nor do the adult seals escape the fury of the hunters. Shooting is a common method for killing them, but the treacherous weather and icy conditions can cause many of the seals to escape wounded, only to flounder about painfully, waiting for a slow and lonely death under the ice. It is not the old, the weak and the diseased that are killed off, but rather the strong and aggressive, and those seals which are curious and even friendly enough to allow a hunter to approach them.

Last year in the Gulf of St. Lawrence, some 50,000 seals were killed in the hunt; this year's quota has been set at 45,000.

But this is only a fraction of the seals killed every year in the Canadian-Norwegian seal hunt in the Atlantic. Last year, Canada admits that "close to 300,000" seals were "harvested," although other observers claim that the figure was closer to half a million.

This year's quota has been reduced to 245,000 harp seals, since there is some concern that the once-huge herds are suffering serious depletion. There is, however, no way of verifying whether this quota will be adhered to.

Not surprisingly, the annual seal kill (which the Canadian government takes pains to refer to as a "slaughtering operation") has generated a yearly outcry. This protest is led in Canada by Brian Davies of the International Fund for Animal Welfare, and in the United States by Alice Herrington of a New York-based group called Friends of Animals, Inc., whose poignant ads showing a picture of a baby seal have become familiar to readers of The New York Times. Both have witnessed the hunt and describe it as brutal and inhumane.

The Canadian government has responded to these protests by defending both its methods and purposes. Ottawa points out that seals are not an "endangered species," and claims that if vast numbers of seals were not killed off every year, the herds would grow too big. However, recent press releases from the Department of Fisheries and Forestry announcing the opening of the new season admit that there has been an overkill in the North Atlantic in recent years, and that the herd that arrives off Labrador each year is "seriously depleted."

Conservationists contend that there would be no real danger of overcrowding if the herd were allowed to increase to its natural size, since seals are gregarious by nature and tend to bunch together "like people at a cocktail party." Moreover, Ottawa's own figures indicate that the size of the herd has been reduced within the last 20 years from 3 to 2 million.

Canada also stresses the economic benefits of the hunt, although official figures for 1969 show that the average land hunter earned a gross income of only $120. These residents of the coastal areas—called landsmen—pay $1 for a license to participate. The ambitious hunter can kill and skin about 125 baby seals a day at about $7 per skin, though this is rare. Some conservationists have suggested that at least this much more income would accrue to the inhabitants of the area if it were transformed into a seal preserve and a serious effort was made to promote tourism there during the period when the baby seals were being born and nursed.

Furthermore, there are numerous other sources of leather and fur trim, which are made from the seal pelts; and the oil, which is made from the blubber and used in margarine, soap, and cosmetics, can easily be obtained elsewhere. And the snow-white fur so primitively "harvested" from the baby seals is in no sense necessary to man's welfare. By any standard it is a luxury item.

One criticism to which the Canadian government has shown some sensitivity concerns the killing of the baby seals, especially the "whitecoats," since they present a vividly pitiful spectacle as they are clubbed to death. In response to protests over this, the Canadian government last year promised that no baby seals would be killed in the 1970 hunt. Official statements continue to make much of the claim that the opening of the hunt was postponed and whitecoats were prohibited from being taken. However, what is left unsaid is that the authorities simply got around this prohibition by referring to 21-day-old infant seals that had shed their white coats as "beaters," and these were still fair prey.

The government's announcement did, however, have its intended effect of quieting the public uproar. Furthermore, spring came late last year, and the setting back of the opening of the hunt by 10 days did not have the ostensibly desired effect. As an official brochure euphemistically states, "the Gulf herd was late in whelping, and as a result, some of the animals were not as mobile as anticipated." This year the hunt officials have dispensed altogether with this subterfuge and are openly permitting baby seals—whitecoats and beaters—to be killed.

Finally, there is the matter of the humaneness of the hunt, and the Canadian government emphasizes that it is carried out under strict supervision and in as humane a manner as possible. However, an embassy spokesman in Washington admitted that the area of the hunt is too large for complete supervision and that some violations of the rules do inevitably occur.

It is difficult to see how a hunt can be defended as "humane" when the most efficient and generally used method of killing is with clubs; and since the skulls of the seals are covered with layers of thick blubber, it often requires many repeated blows to smash their skulls and render them dead or unconscious. And although it is officially denied, some pups are skinned alive.

Friends of Animals photo

A seal hunter is closely watched by Celia Hammond, representing a British society which protests killing of seals, as he clubs a harp seal pup on the ice floes of the Gulf of St. Lawrence last year.

The lengths to which the Canadian government goes in defending the hunt is exemplified in a brochure which boasts that "hunters often do not kill the seal pups defended by the mothers, probably because it takes them too much time to chase the mother away and to be exposed to the attacks by mother seals while skinning the pups."

Government literature quotes freely from numerous "expert" witnesses who defend the "human" methods for killing the seals. Other eyewitnesses disagree, however: Brian Davies has told of hearing a seal scream twice as the skinning knife was plunged into it, and Alice Herrington has described watching baby seals being clubbed 14 times while the mothers watched in terror.

Yet, the Fisheries and Forestry Department's news release on the hunt's opening promises that "the same high standard of surveillance of the seal hunt will be maintained this year." But in the final analysis, the question of the humaneness of the hunt is not a real one. The hunt, by its very nature, is and must remain brutal. The only way to make it humane is to eliminate it.

Will the Canadian-Norwegian seal hunt continue this way in the years ahead? Apparently so, according to a Canadian embassy spokesman, since there is practically no domestic opposition to the hunt except for Brian Davies and his group. And when the hunt officially ends on April 24, after some 245,000 seals have been killed, it will be only a matter of weeks before U.S. hunters get their turn. Around July, in Alaska's Pribiloff Islands, the annual "harvest" of some 60,000 adult Alaskan fur seals will begin, under the supervision of—appropriately enough—the U.S. Commerce Department.

[From the Washington Post, May 3, 1971]

THE MANATEE EATS WATER-HYACINTH, SO IT MUST BE SAVED

(By Claire Sterling)

BANGKOK.—The manatee, a mermaid in the olden days for sailors who must have been far from home for quite a while, is not altogether the ravishing creature of legend. Its heavy body, twelve feet long, is pocked with slime-green algae, its rubbery nose covered with bristles, breasts leathery, front flippers (there are none at the rear) tipped with three coarse nails. It cannot sing, being mute, though it will sigh and groan when hurt. Neither can it smile enticingly, having no front teeth. Yet when that toothless mouth opens with gluttonous pleasure as those clumsy flippers shovel the food in—the upper lip is cleft for speedier intake—the charm of this singular mammal becomes apparent.

For the manatee eats water-hyacinth, will eat practically nothing but, and keeps at it all day long. Nobody else is so inordinately fond of this watery vegetable, which few fish will bother to nibble at, the lower biological orders don't care for, and humans find peculiarly obnoxious. That is why, after letting manatees very nearly die off without a second thought, we are suddenly giving them our affectionate attention.

Once the water-hyacinth was simply a pretty flower in Japan. Then it went off with someone or something to South America, after which it soon began to show up in almost any body of water where the climate was genial. Breeding both sexually and vegetatively and growing a mile a minute, it is now choking rivers, lakes, bayous, canals and even ponds in many of the U.S. Gulf states, most of Central and South America nearly all Africa from the Congo and Rhodesia to Tanzania and Madagascar, and eastward to India, Pakistan, Indonesia, Thailand, Vietnam, the Philippines, New Zealand, Australia. The whole Congo River has been threatened by it. Half the White Nile's flow through the vast Sudanese Sudd Swamp is lost because of it. Almost every hydro-electric project built in the tropics since the last World War is menaced by it. And it is already a nightmare for development planners here in the lower Mekong Basin, who have barely gotten around so far to building a handful of the forty-odd dams they have in mind, and are not sure if they dare go much further. (Northeast Thailand, in the basin area, is blanketed with water-hyacinth, which has kept three new reservoirs there from filling.)

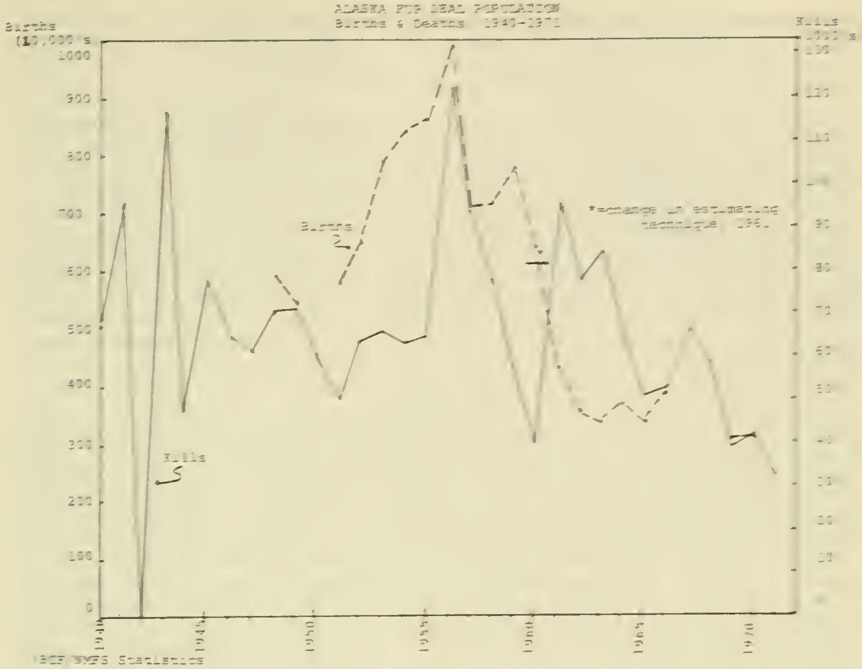
There are lots of other objectionable acquatic weeds: water-lettuce, for instance, is an ideal home for malarial mosquitoes on Lake Volta in Ghana, and waterfern almost put the Giant Kariba Dam out of business. But water-hyacinth has it all over them as a nuisance. Its seeds can lie dormant for fifteen years, migrate with the birds or wind, come to bloom in almost any warm water, and run riot in new lakes forming behind dams, rich in nutrients from the fertile land just flooded. Once it gets going in these waters, it can form a mat thick enough to walk on, and spread at a frightening rate over hundreds of square miles. The mats can check a river's flow to a trickle, increase floods by blocking channels and control-gates, clog irrigation canals and drainage ditches, block the passage of boats for transport or fishing, become entangled in a dam's trash-cracks or penstocks and so stop the turbines, pollute the water with endlessly rotting vegetation, killing off the fish for lack of oxygen, harbor snail and insect carriers of bilharzia, liver fluke, malaria, encephalitis, bolt out the sun's rays and thus interrupt the photosynthesis necessary for phytoplankton, a primary fish food, keep immense reservoirs half-empty for years or forever by soaking up eight or ten times more water through transpiration than losses through evaporation.

Furthermore, it has survived every assault devised by man. Sawboats with Rube Goldberg contraptions may cut the same area four or five times, and it will still sprout again. Fiendish leaf-eating beetles have been turned loose on it and retired in defeat. Weed-eating fish such as the silver carp have been stocked in huge numbers, only to end up as an expensive lunch for cannibals like the Murrel, who love to sport among its trailing roots.

Farmers have tried to harvest it as fodder for water-buffalo or pigs, but the processing and portage cost more than its worth. Herbicides have been poured, painted, sprayed from boats, the shore, the air at huge expense, some not poisonous enough, others too much so for the fish, and us.

There remains the manatee, not easy to come by, or keep. Some are left in British Guyana, but not many: they are too virtuous, too good-tempered, and much too good to eat. Their flesh, depending on the cut, may taste like poultry, fish or beef, while that of their young is much like veal. Their fat is more delicious than butter, with a mild flavor of pork in the young ones and the added advantage of not going rancid in the heat. It is also a mild laxative, and burns brightly in lamps, if any further incentive to hunt them were needed. Though shy of the hunter, they would never think of hunting him back, being strict vegetarians. They are therefore incapable of frightening men off, and since they are monogamous and love each other, they may even flounder after a hunter, begging to be taken along, if he is carrying off a mate.

It is this very goodness that will doubtless keep them from being saved, now that we are trying rather late in the day to save them. Efforts have been made to capture and bred them, in Mexico and the U.S., in waters where they have only to reach out a flipper for as much as they want of the food they dote on. But only constant surveillance can keep the hunters away, and no young manatee—they must gestate a year, and only one at a time—has yet been born in captivity.



ALASKA FUR SEAL POPULATION—BIRTHS AND DEATHS, 1940–71

Year	Births	Kills	Year	Births	Kills
1940		65,323	1956	992,000	122,825
1941		95,034	1957	712,000	93,618
1942		150	1958	725,000	78,918
1943		117,164	1959	779,000	57,300
1944		47,743	1960	643,000	40,518
1945		77,003	1961	[1] 438,000	95,974
1946		64,946	1962	362,000	77,915
1947		61,633	1963	343,000	85,254
1948	592,000	70,386	1964	370,000	64,206
1949	550,000	71,080	1965	347,000	51,020
1950		60,537	1966	388,000	52,866
1951	570,000	51,506	1967		65,216
1952	616,000	63,950	1968		54,532
1953	795,000	66,723	1969	304,000	38,805
1954	838,000	63,882	1970	306,000	42,141
1955	868,000	65,453	1971		31,800

[1] New system of estimating pups instituted.

Source: Births—Affidavit of Ancel Johnson, NMFS biologist, in District of Columbia District Court Civil Action No. 1192–71; kills—1940–65, USGS Circular 275, published October 1967; 1965–71, BCF/NMFS annual reports on Pribilof Islands program.

ALASKA FUR SEALS KILLED 1956–70

Year	Males killed	Females killed	Year	Males killed	Females killed
1956	96,066	27,599	1964	48,980	15,452
1957	45,198	47,413	1965	42,122	10,432
1958	47,872	31,102	1966	52,477	391
1959	30,195	28,164	1967	55,720	11,398
1960	36,320	4,315	1968	45,625	13,335
1961	32,137	43,349	1969	38,573	230
1962	53,680	43,760	1970	42,121	121
1963	42,386	43,352			

Source: National Marine Fisheries Service (Mr. Walter Kirkness) Sept. 2–3, 1971.

[The following is excerpted from an article written by Georg Gerster and distributed by The Toronto Telegram News Service]

THE BERING SEA MASSACRE

The sad, almost accursing look in its eyes gives the lie to its martial tusks and scrub moustache. The walrus is in fact an uncommonly peaceable animal.

It would be difficult to exaggerate the image of phlegmatic satisfaction and finny togetherness created by a group of these sleepy giants on an iceberg.

And seen against such a peaceful backdrop the massacre of the walrus being carried out by American Eskimos in Alaska is all the more abhorrent. In their sealskin boats, with motors switched off, they coast noiselessly to a point just a few yards away from a herd and shoot indiscriminately into the massed bodies until the magazines of their rifles are empty. While the remainder flee panic-stricken into the water, a few animals lie helplessly on the ice bleeding to death, staining the surrounding water red. But no effort is made to pursue and harpoon the dying animals.

A few hundred yards further another herd of walrus sits on another iceberg, not yet frightened by the noise of the shooting.

This was the view I had, on a brilliant May day in the Bering Sea in full view of the snowy mountains of Siberia's Chukchen Peninsula, of what is still euphemistically termed a "walrus hunt" in official language. I make no accusations against the crew of the boat in which I rode; its three Eskimos behaved like good, responsible hunters. But what I saw from my vantage point in their boat was a pure slaughter which does no honor to the land which permits it.

The Pacific walrus (Odobenus rosmarus divergens) migrates with the periphery of the ice-floe which advances and recedes in the course of the seasons. The herds ride on floating icebergs which pass through the Bering Strait in May and June heading for the Arctic Ocean. A few thousand bulls separate themselves from the herds and, instead of travelling northward with the cows, calves and other bulls, remain in some sheltered bays in southern Alaska, spending the warm season there and, in their temporarily hairless condition, showing a pinkish sunburn like that of inexperienced summer vacationers.

In October and November, swimming in front of the returning icefloe, the herds drift back through the Bering Strait to their breeding grounds. The Eskimo settlements on the islands of the Bering Sea, in and around the Bering Strait and a few Eskimo villages on the Alaska coast of the Arctic Ocean, taken advantage of their proximity to the migratory path of the walrus particularly in the springtime. In the autumn, however, stormy weather and tricky ice conditions protect the animals from the hunters.

The walrus has always provided the traditional economic foundation for these Eskimo communities. It yielded meat for immediate consumption and dried meat for the winter, its hide was used for the exterior of the unmiak boat and for ceremonial drums, its stomach provided a long-lasting knapsack, its intestines took the place of glass in the windows of Eskimo dwellings and were also worked into waterproof rain garments, while the ivory of the walrus tusk served as the raw material for household utensils, hunting tools, jewelry, toys and even weapons of war.

Official terminology still stubbornly holds fast to the phrase "subsistence hunting," while the powerful Eskimo pressure groups operating in Washington profit from the bad conscience which white Americans have developed vis-a-vis the Indian population (but need not feel with regard to the Eskimos). Operating with the fiction of the "subsistence hunts," the Eskimo lobby has created a dual standard: A white man who shoots a duck off-season winds up in jail; an Eskimo who does the same thing defends his hunting rights before Congress and returns to his village after shaking the hand of the President.

To observe the Eskimo's walrus hunt I flew to Gambell, a village of 62 houses on the northwestern cape of St. Lawrence Island in the narrow part of the Bering Strait. Most of the 250 inhabitants live as pensioners of the government, benefitting from one form or another of welfare payments. Despite this, the fresh strawberries from California which had arrived by the same airplane in which I flew, disappeared almost immediately, and in the house of the female entrepreneur who does her buying in the "lower 48" (the Alaskan's term for the continental United States), half the village gathered to reach graspingly for the luxuries of the outside world.

Upon its arrival, the plane itself had been met by villagers driving nearly 50 snowmachines, small caterpillar vehicles designed to travel over snow and tundra and costing some $1,200 each. It is no longer the number of husky sled-dogs but rather the number of such snow vehicles which is the prime status symbol in Eskimo Alaska today.

At the beginning of the hunting season newly killed walruses are skinned (an umiak used in razor-sharp ice is customarily recovered each year) and its meat, used primarily for the remaining sled-dogs, is loaded into the hunters' boat. But very soon the point is reached at which the dead walruses are relieved of only a few parts prized as delicacies, such as the heart and liver, and others which are commercially valuable—among which is the male's penis bone, popular as a travel souvenir from Alaska and used to enliven an otherwise dull stag evening. But primary among the sought-after parts is the ivory of the tusks which extend far out of the mouth of both male and female walrus. The hunt for meat of former days has now largely deteriorated into a hunt for heads.

And in Gambell, when grey whales approached the coast, playing in the water and spewing fountains from their blow-holes, I saw teenagers using these rare animals for target practice—with live ammunition.

The responsible officials of Alaska's Department of Fish and Game are no doubt aware of this situation. It is difficult to shake off the impression that, in order to have a pretext for intervening, they would welcome an international outcry of indignation. In view of the powerful Eskimo lobby, there is little that they can do on their own initiative, especially since numerically speaking the Pacific walrus is far from belonging on the list of those species threatened with extinction. Aerial counts and statistical evaluations yield an estimate of at least 95,000 walruses at present.

Alaska's hunting laws permit any hunter resident in the state to bag an unlimited number of walrus bulls each year, but only five cows (the quality of whose ivory is superior to that of the males). Hunters from outside the state are permitted only one bull.

At present the Alaskan Eskimos bring in some 1,700 animals annually, among them less than 700 cows. But there is some controversy as to how much this figure must be multiplied in order to arrive at the actual number of animals killed. Some losses are inevitable in hunting maritime mammals.

The easiest way to somewhat ameliorate the situation would be through manipulation of demand for ivory, which is the actual motive for this headhunt. Eskimos should not be permitted, openly yet in clear violation of the law, to bring treated walrus skulls by plane to the black market without being punished for it. Consumption of raw ivory by Eskimo carvers—which constitutes the legal and government-regulated market for raw ivory—could be artificially reduced.

As to the hunters, considering the low rates now paid for raw ivory ($1.75 per pound), any losses in income they might suffer could be easily replaced. A single group of tourists who, instead of supporting the senseless massacre of the walrus by buying ivory souvenirs, would choose instead the icy adventure of a photo safari in an Eskimo umiak, would leave behind them in the Eskimo village enough dollars so that an entire herd of walrus could live on unmolested.

SEA OTTERS AMBUSHED

The story of North America's sea otters generally is taken to be a nick-of-time conservation success story. Almost wiped out in a fur-hunting frenzy that raged along the Pacific Coast during the nineteenth century, the two sub-species of otter somehow held on in scattered remnants until strict protection was granted them. The northern sub-species staged a comeback around Amchitka Island in Alaska's remote Aleutians, protected by sheer distance and bad weather as well as by law. The southern sea otter, nearer civilization, fared less well in the fur hunt and less well afterwards. For a time it was feared extinct. But it too climbed slowly toward a reasonably secure population, protected everywhere by laws with stiff penalties and given special protection in a refuge. Many otter supporters began to think the worst of the battle was over.

It seems now that it is much too soon to remove the endangered species tag from this remarkable animal. The twentieth century scourge of pollution and the age-old power of profit are formidable barriers to the southern otters' survival. In a shocking demonstration of arrogance in the face of the interests of the entire nation and world, certain abalone fishermen in California in recent months have been shooting and stabbing the otters, and the population seems to have declined sharply.

The fishermen regard the otters as competitors for the prized red abalone and blame them for the declining harvest of the shellfish. Responsible scientists have pointed out that the abalone are declining into commercial extinction in several areas where there are no ottters, and they suggest that overfishing, succored by a wholesale price of $2.50 per pound for abalone meat, is the cause of the decline.

The illegal shooting goes on nevertheless. Men with rifles and binoculars have been seen in the turnoffs along a clifftop road running beside the refuge, scanning the surf for otters. One man boasted (true or not) that he had shot 40 to 50 otters. These and scores of others killed came from a population that in May 1970 was tallied at 1,040 and estimated to total between 1,200 and 1,500 animals—the highest population in a century. In February another count turned up only about 800 otters, and it is believed that the total (always greater than the census because some animals are not counted) is now about 1,000.

The otters killed have been sacrificed to the mistaken belief that they threaten a minute fishery for a luxury food that we could well do without. The town of Morro Bay, population 8,500, is the self-styled abalone capital of California and the center of the abalone-otter dispute. Despite this prominence in the matter, only 25 families in Morro Bay make their living fishing for abalone or processing them. With an annual otter population growth rate estimated at only 5 percent, it could take as much as a decade to replace the missing otters, even if all persecution stops immediately.

The California sea otter lives for the most part in a state refuge that includes about 50 square miles of wind-tossed surf running south against the coast from Seaside on Monterey Bay almost to Morro Bay. This is all that remains of a former range extending from the coast of Washington south to central Baja California. The refuge is bounded approximately by natural deterrents to otter movement. The animals do not like to leave the protection of the kelp beds, so they are unwilling to venture into Monterey Bay in the north or into the waters south of Cayucos on Morro Bay. Both of these areas are free of kelp and have sandy bottoms that harbor little in the way of otter food.

A general reluctance to migrate out of the kelp, however, has not prevented a few of the more venturesome from traveling. If unmolested, they probably would be able to repopulate a good part of their former range. One animal apparently struggled all the way north from the refuge, past San Francisco, to Point Reyes National Seashore, where the seamy side of human nature caught up with it. It was found shot dead.

Most of the trouble has occurred at the south end of the refuge. The kelp continues a few miles beyond the end of the refuge to Cayucos. This kelp is part of the commercial abalone fishing grounds, though otters found there still are fully protected. At one point the California Department of Fish and Game said there were 90 sea otters, chiefly young males, hunting outside the refuge in the commercial grounds.

Ironically, the abalone industry is an artificial fishery that developed in the nineteenth century as a result of the near extermination of the sea otter. Before men began to molest the otters, they were at the top of the principal food chain in the great beds of kelp off California's coast. The only creatures besides man that prey significantly on sea otters are killer whales and sharks, and they tend to stay out of the kelp forests. Two of the mainstays of the otter diet are sea urchins and abalone, urchins reportedly being the preferred food if there is a choice, although the abalone fishermen claim otherwise.

The abalone depends on the kelp-bed environment for its food but does not eat or otherwise harm the living kelp itself. The sea urchin, on the other hand, does eat the kelp, and inefficiently at that. It chews through the giant algae's anchoring roots, thus obtaining only a few grams of food but causing the 100-foot-long fronds to wash ashore and die. In this way one urchin can do a great amount of damage in getting its food, incidentally piling up the shoreline with rotting kelp.

In the old days the otters kept the urchins' numbers down below the point at which they posed any threat to the kelp forests. Healthy kelp forests sheltered healthy populations of abalone and other sea life.

It might be thought that the otters would keep the abalone cropped back as much as they did the urchins. This was not so, it seems. Otters prefer urchins, possibly because they are easier to pick up and eat than are the tenacious abalone. Otters have been seen to dive as many as 20 times just to loosen one abalone from its rock. There is no doubt that otters eat and relish the abalone, but the mollusk's formidable defenses may tend to deflect the otters' attention to easier prey. (Sea otters are known to eat at least 26 species of marine life in California.) All told, the otters did the abalone more good than harm by keeping the kelp ecosystem stable. They did eat enough abalone that commercial abalone fishing would have been unprofitable, but sport divers could easily have found enough for a hearty snail lunch.

Man was not content, however, to fit in so amiably. First he eliminated the otters as rulers of the kelp. Uncontrolled, both abalone and urchin populations boomed. Then fishermen took the shellfish much faster than they were able to reproduce themselves. One area after another was stripped of abalone, without a single otter present on which to blame the havoc.

Friends of the Sea Otter (FSO), based in Big Sur, was formed to try to protect otters from assassination and to fight off attempts to "manage" them for the abalone fishermen's benefit. The group points out that even if abalone exploitation had not been vastly too great before, new state regulations are making it so. The new regulations permit the commercial exportation of abalone from California to other states so it can compete with imports from Mexico and Japan.

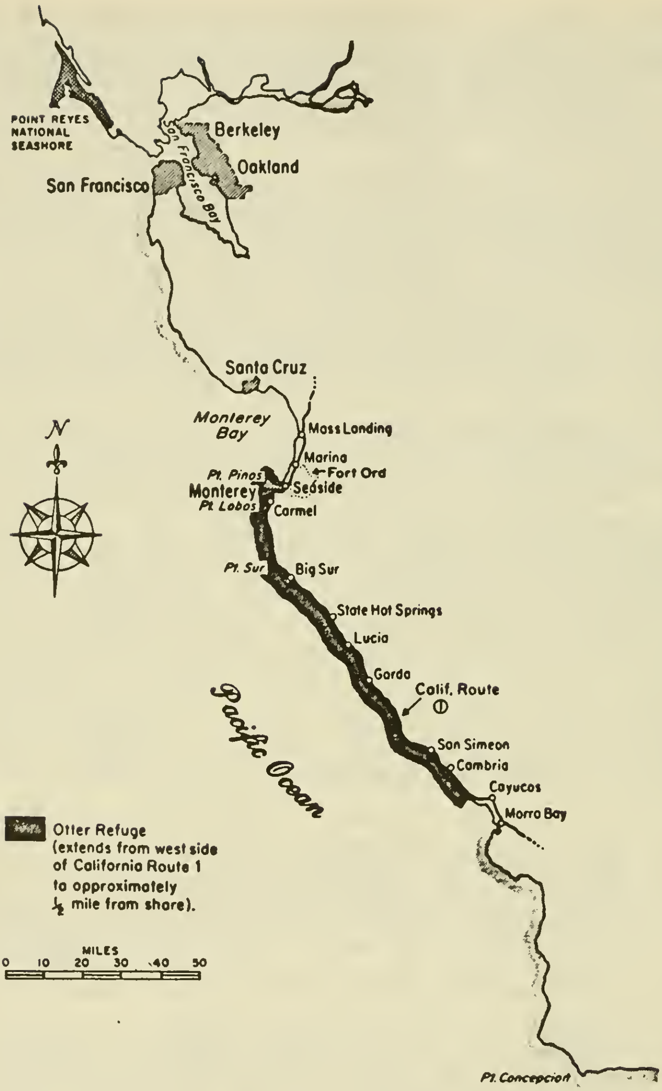
Nobody paid much attention to the urchins, which continued to multiply. Finally, in recent years, they began to make their presence known in a painful way. Mountains of kelp started washing ashore. Investigation has shown that a plague of sea urchins is clearcutting the kelp forests, leaving wastelands behind that support neither abalone nor very much else.

The abalone thus are in a pinch between overfishing and loss of habitat. They cannot be expected to survive as much more than an oddity at the present rate of exploitation, which is not controlled by realistic regulations, Lately some divers have been trying to deal with the urchin threat by going out with hammers to smash them, hoping themselves to replace the otter as the urchins' controlling power. They are also going into the clearcut zones to replant the kelp. Luckily, kelp regenerates with little trouble, as it is among the world's fastest growing plants. Laudable though this effort is, given the extent of the kelp beds to be protected, hammering urchins to death is an uncomfortably close parallel to swatting flies with a mallet. It kills them, but. . . . The otters, once on duty around the clock in large numbers, were doing a better job of it. Even the abalone fishermen have recognized this, proposing that otters be turned loose in urchin-infested areas.

The California Department of Fish and Game (DFG) has conducted preliminary studies to determine whether the transplanting of otters from one area to another might not only end the conflict between abalone fishermen and otters, but at the same time give the otters some insurance against sudden extinction from a massive oil spill. Marine biologist Ken Wilson, formerly in charge of the department's sea otter studies, believes that the California otter population also could be decimated either by an epidemic or by overcrowding and subsequent starvation if otters are left in their present refuge. "We would like to split the California sea otter population so as to avoid a biological catastrophe," Wilson says.

DFG claims that more than 40 otters per square mile is too many for the natural food supply of the refuge to support. They cite Alaska, where the northern otter population has reached this high a density, as an example of the need for artificial reduction of the otter population. (In Alaska, otters in high-density areas unfortunately are killed for their fur. The taking of over 500 pelts a year has led, also unfortunately, to revival of the otter fur industry. Legal sales of otter pelts are again featured in the Seattle Fur Exchange.)

DFG's own experimental otter transplant demonstrated the hazards of trying to move the otters, the only alternative to killing them if they are to be "managed." Using techniques first tried in an Alaskan otter transplant in 1969, 23 otters were netted from the battleground at the southern end of the range. Seventeen were tagged and released at Big Creek, roughly in the middle of the refuge. Another three died during the operation. The last three were given for study to the Stanford Research Institute. Otters do not do well in captivity; these three died within a few months. Of the otters released at Big Creek, nobody knows whether any subsequently died from the effects of the netting, handling, and transportation. But within 5 months five of the 17 were found back at Cambria where they had been captured.


POINT REYES NATIONAL SEASHORE
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Pt. Pinos
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Pt. Lobos
Carmel
N
Pt. Sur
Big Sur
State Hot Springs
Lucia
Gorda
Calif. Route ①
Pacific Ocean
San Simeon
Cambria
Cayucos
Morro Bay
Otter Refuge (extends from west side of California Route 1 to approximately ½ mile from shore).
MILES
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Pt. Concepcion

Says biologist Wilson, who participated in the transplant operation, "the experiment indicates that the animals have a homing instinct. If the otters are transplanted, it must be to another habitat."

The Department of Fish and Game has just completed two aerial surveys of habitat in northern California. The surveys ranged from Santa Cruz to the Oregon border. Two areas—Point Benito and Point Reyes—could prove to be suitable otter habitat. Point Reyes National Seashore, located just north of San Francisco, is believed to be the area where there would be the least likelihood of conflict with commercial fishing interests.

DFG wants to transplant otters to Point Reyes (at a cost of $600 per head), with authority to manage the population there. Specifically, DFG wants authority to control the herd size (*à la* Alaska?) and remove a number of animals for scientific study. "We need to establish physiological baselines," says Wilson, in support of increasing scientific investigations. "Today, if we saw otters dying we wouldn't know why."

DFG Chief of Operations E. C. Fullerton said, however, that his department does not intend to make any recommendations for the management of the otters until a 3-year study started by DFG in 1968 is complete and carefully evaluated. "The more we learn about the otter," he said in November 1970, "the more we realize that we know very little. We want to retrench and see if what we are doing so far is right. . . . We've got to go back and learn more."

Originally FSO itself favored transplanting otters to avoid the threat of an oil slick rendering the animals extinct overnight. Now the group is much more cautious, pointing to the mortality that so far has been unavoidable in transplant attempts and to the fear of biologists working in the field that the released otters would not multiply.

FSO now feels that transplantation should not be attempted without careful scientific study. The group's position is that were it not for the oil threat, the otters should be allowed to extend their range naturally. Even with the oil threat in mind, transplants should be only a last resort.

The question of whether there is any real danger of overcrowding in the California otter refuge has provoked hot debate. One University of Santa Cruz biologist, during a sea otter-abalone conference at the Moss Landing Marine Laboratory, said that he could see "no evidence of malnutrition or stress or starvation or population pressure" in the refuge. He said data show that the California herd "could be four times the size it presently is—in its present range—before there's the necessity of . . . having to move [otters] because of depletion of range."

Friends of the Sea Otter maintains that the claim of overcrowding and subsequent movement into commercial abalone beds is based on DLFG's desire to transplant and manage. Formerly FSO observers on shore worked in conjunction with DFG census takers in aircraft to count the otters. And Dr. James Mattison, a physician, otter student, and FSO executive committee member, performed the autopsies on otters found dead (it was he who autopsied otter shot by three men convicted and fined in September 1970 for the killings).

As the otter-fishermen conflict welled, however, DFG spokesmen made statements such as "the presence of large numbers of sea otters is not compatible with abalone fishing" (which latter DFG also regulates). Cooperation with FSO was terminated by the department's agents in the field. All dead otters must now be autopsied by DFG, and the number of otters per square mile is counted by DFG observers acting alone.

After cooperation was withdrawn, DFG Director Ray Arnett, former public relations counsel to the Richfield Oil Co., told a group of wildlife professionals: "I also see potential problems . . . if [a state or federal employee] were to testify . . . in opposition to the established position of the agency or department he serves . . .

"Putting it more bluntly, should a professional employee of the Department of Fish and Game . . . assume the position as public critic of the policies of that organization? I think not . . . Nor can I subscribe to the theory that because an employee is expected to abide by the policies of his agency in a controversial matter, he has been 'muzzled' or 'silenced.' "

Subsequently Mr. Arnett wrote that DFG "no longer consider[s] the sea otter to be an endangered species, nor are they rare." However, the most recent edition of the Red Book of rare and endangered species of the United States, put out by the U.S. Bureau of Sports Fisheries and Wildlife, declares the southern sea otter rare and a distinct subspecies.

Dr. Robert T. Orr, associate director of the California Academy of Sciences and an FSO advisor, said efforts by the state to manage the otters were aimed only at insuring that "a small group of market hunters, who are commercializing on something that belongs to all of us, can continue their exploitation to produce a gourmet item. These big sea snails are not a basic food. Their price is out of the range of the average citizen. Furthermore, the commercial hunters are not replenishing things that belong to you and me. I want my abalones to stay in the sea for otters or any other creature that won't exploit them.

"If the Department of Fish and Game has so much surplus money as well as extra personnel that it can spend its time finding ways and means of curbing the expansion of [otters] and transporting sea otters so that market hunting of abalones for gourmets can continue, we have reached a sad state. I would suggest that such money and effort be channeled to the study of abalone culture. Then perhaps abalones, like oysters . . . can be farmed and prices brought to within the reach of all. I would suggest that in the best interests of the people of California [the state should] prohibit the commercial taking of abalones."

(DFG receives no appropriations from the state treasury. It is entirely supported by license and permit fees. Therefore its partisanship for a commercial species in conflict with a noncommercial species is hardly surprising.)

Dr. Burney LeBocuf, a marine biologist at the University of California at Santa Cruz, answered the contention of the abalone fishermen that southern otters are no different from northern otters and therefore should be "managed" and not given the protection of the endangered species label. "The sea otter colony off the coast of California is small," Dr. LeBocuf said. "The colony is also unique. The California otters differ in several important behaviors from their counterparts in Alaska. To tamper with a small colony of a unique and endangered species is foolhardy." To this might be added the small point that for the majority of Americans interested in seeing their sea otters playing in the surf, it is easier to get to Point Lobos than to the Aleutian Island of Amchitka, where the northern otters live.

Southern sea otters, once one of the prides of the wildlife conservation movement, obviously are not yet out of danger. Abalone fishermen, understandably distressed at the loss of their fishery, nevertheless cannot be permitted to vent their spleen on the otters. The otters are not responsible for the loss of the abalone fishery; and even if they were, the existence of a unique remnant of a formerly great population of one of the Earth's most enchanting creatures is of immeasurably greater importance than the preference of a few gourmets for a particular kind of snail. Furthermore, the state of California certainly should not abet such distorted values as would place the dollar value of abalone over the otters.

"You would think that the people in the Monterey–Morro Bay region might look at the past," wrote Neal Thomas of Huntington Beach, California, in a letter to FSO. "They had a thriving whale fishery once and ruined it, then they had a sardine fishery and ruined it, now they have an anchovy fishery and are trying to ruin it. Sea otters have never 'ravaged' any whales, sardines, or anchovies—to the best of my knowledge."

Every possible action should be taken immediately to enforce the otter's protective laws. DFG wardens have been praised at every hand for their vigorous efforts in enforcing the law, but they have a very large area to cover and need more men.

Research into abalone culture already is under way by DFG biologist Wilson and others and should be pressed as energetically as possible. In the meantime, the Department of Fish and Game should halt the taking of wild abalone everywhere in California for long enough to allow the snails to recover their population, then should promulgate sustained-yield fishing regulations. Presumably restaurants and markets in California and elsewhere would not be able to sell abalone if commercial taking were ended, but in any event they should suspend sales, and consumers should no longer purchase abalone anywhere. (They are exploited wherever they are fished.)

Finally, otters should be encouraged, not discouraged, to extend their range as they are able. For further information readers may write to Friends of the Sea Otter, Big Sur, California 93920.

(Whereupon, at 5:18 p.m., the meeting was recessed subject to call of the Chair.)

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